

# FLIGHT

*The*  
AIRCRAFT ENGINEER  
AND AIRSHIPS

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## EDITORIAL COMMENT



COMPARED with flying the Atlantic, a flight from England to Australia is usually considered a comparatively safe and harmless amusement. Quite a number of people who have started out with the intention of seeking the Shiny East in a small aeroplane have failed to arrive there; but, so far as we can remember, only one machine, that of Hook and Matthews, has met with fatal disaster. Mostly the failures have occurred in Europe or northern Africa. Of course there have been crashes on eastern flights. One of the most notable was that of Squadron Leader Maclaren's Vulture near Akyab, when that officer was trying to fly round the world. But on the whole, the eastern route has a fairly clean record.

Nothing does so much harm to an air route as for it to become a sort of aerial Daytona beach, on which records can be made and broken. The eastern airway is now gaining that unenviable reputation. Hinkler's record for a journey to Australia in a light aeroplane still stands after more than two years. That fact is in itself a temptation to all owners, and in some cases prospective owners, of light aeroplanes. A stream of some half dozen pilots is now starting off from Croydon one at a time in the hope of lowering Hinkler's record. We have ourselves had an inquiry from a young man who had not yet learnt to fly, as to what was the best time of year to start flying to Australia, which he proposed to do in a few months' time. No doubt everyone who contemplates this attempt thinks that nothing worse will befall him than a failure to arrive. The only section of the route which seems to cause any apprehension is the crossing of the Timor sea between the Dutch East Indies and Darwin.

Most undoubtedly it is a very hazardous undertaking for a landplane with a single small engine, and that engine already sorely tried by a long journey, to set out across that wide stretch of sea, and we can only marvel at the good luck experienced by all the machines which have got so far as the East Indies.

## DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list—

1930

- Sept. 17-21.. Belgian Light Aeroplane Competition.
- Sept. 19-20.. Flying Week-end at Llandudno.
- Sept. 20 .. Lancashire v. London Gliding Match.
- Sept. 25 .. R.Ae.C. and S.B.A.C. Lunch at Savoy Hotel, to British Competitors in International Touring Competition.
- Sept. 27 .. N.F.S. Air Meeting, Hanworth.
- Oct. 4 .. Surrey Ae.C. Meeting, Gatwick Aerodrome.
- Oct. 9 .. Lecture, "The Growth of Aviation," by C. R. Fairey, before R.Ae.S.
- Oct. 21 .. Society of Engineers' Dinner to Miss Amy Johnson, at Holborn Restaurant.
- Oct. 23 .. Lecture, "Air Transport in Fog," by F. W. Meredith, before R.Ae.S.
- Nov. 13 .. Lecture, "Testing the Control of Aeroplanes," by H. L. Stevens, before R.Ae.S.
- Nov. 20 .. Lecture, "Recent Developments in Engine Cooling," by Capt. H. Swan, before R.Ae.S.
- Dec. 4 .. Lecture, "The Four-Foot Wind Tunnel," by H. Glauert, before R.Ae.S.
- Dec. 11 .. Lecture, "Axial Engines," by M. L. Bramson, before R.Ae.S.
- Nov. 28- Dec. 14 Paris Aero Show.

1932

- May 31 .. Closing date for Cillon Cross-Channel Glide £1,000 Prize.

So far as that sea is concerned, the law of probabilities must be beginning to feel the strain. But the Timor sea is not the only dangerous part of the route. It is, perhaps, not the most dangerous and certainly not the most difficult to fly across. The dangers and difficulties of the stretch along Burma and the Malay peninsula from Calcutta to Singapore are not appreciated as they ought to be by many pilots who wish to attempt this flight. This mountainous peninsula can never be a pleasant terrain for a landplane to have beneath it, and if safety were regarded as it ought to be, this flight would never be undertaken except in a trustworthy flying boat. In the monsoon time the dangers and difficulties of this piece of country are immensely magnified. The actual date for the beginning and end of the south-west monsoon cannot be stated with great accuracy, as they are apt to vary in different years. But it can be said that monsoon conditions are usually established in eastern India by June 10, and they have rarely finished before September 20. It is not pleasant to have to fly across India through the monsoon. Experience of European rain storms gives little idea of the fury of the monsoon storms in India. But at least India is a flat country, and a forced landing there should seldom mean anything worse than running into some obstruction on the ground and tipping the machine on to its nose. The mountains of Burma and the Malay peninsula are a very different matter.

We have, as a matter of fact, just received a communication from a correspondent in Burma who emphasises the inadvisability of pilots (sometimes men with very little flying experience) in light aeroplanes attempting to fly down this peninsula during the monsoon. The flying conditions then are described by our correspondent as "appalling." He mentions that a R.A.F. "Southampton" flying boat joined in the search for Matthews and Hook. Although this powerful aircraft was piloted by an officer of great experience who was perfectly acquainted with the country over which he was flying, though the boat was fitted with wireless and received weather reports and direction instructions throughout its flight, nevertheless it was held up for hours at Mergui, at Taungup, and again off the Delta because the flying conditions were "impossible." In such a case, what chance can a light aeroplane and a pilot who knows nothing about the country expect to have of making their way to their destination in safety? Miss Johnson, on her return to England,

stated that though she would not mind doing her flight to Australia again, she would not do it in monsoon time. She has now acquired some experience and knows what she is talking about. Of the pilots who are now contemplating flights to Australia, some at least have yet to buy their experience, as Miss Johnson had to do. The monsoon is now nearing the end of its yearly course, and in a few weeks should be entirely gone. Capt. Matthews, who started on Tuesday last, may come in for some of its expiring efforts; those who start later may find conditions pretty nearly ideal once they have got clear of Europe.

There is one aspect of the matter which probably never occurs to private owners when they contemplate a flight to Australia, and that is the effect which failures are likely to have upon the cause of air transport in Burma and the lands beyond. If the question were put to them straight, each one would probably admit freely that the cause of air transport is of infinitely more importance than his own success or failure. Our correspondent states, and we can well understand it, that the recent series of accidents to light aeroplanes in Burma and near by has had a very bad effect on official opinion in the province. We can picture the Indian Civil Servant, the Forest officer, the Public Works official, the Civil Surgeon, and the other officials of a station in Burma, on hearing that Mr. Smith or Mrs. Jones proposes to fly across Burma during the south-west monsoon, meeting in the local club and mingling their unanimous curses over their peg tumblers. We can almost hear the conversation: "Another blank aeroplane coming and dead certain to crash out in the blank jungle among the blank hills and giving us no end of blank trouble going out to look for it in this blankety blank weather! What is the use of blank aeroplanes, anyway?" When, presently, a company comes along with proposals for an air service across Burma, it is not likely to meet with a very sympathetic reception from the officials, on whose enthusiastic support so much always depends in the East. They have come to look upon aeroplanes as things which crash and take over-worked officials away from their proper duty at the most trying time of the whole year, when everyone is overworked and wondering if he will be able to hold out until the coming of the cold weather. To create a bad impression like that does harm to a cause of national and Imperial importance, and far outweighs the good done by breaking a record.

### The Schneider Trophy and the F.A.I.

A MEETING of the Fédération Aéronautique Internationale was held on Friday, September 12, at the Aero Club de France in Paris. The meeting discussed the situation which has arisen through the meeting held in June altering the conditions for the next Schneider contest, which had been drawn up and published by the committee of the F.A.I. in January last. The committee decided that the entrance deposit for each machine should be £1,600, but the full session of the F.A.I., in June altered that to a deposit of about £40. Italy and France tendered entries to the Royal Aero Club of the United Kingdom under the rules as amended by the plenary session, and accompanied them by deposits at the lower rate. The Royal Aero Club held that these proffers did not constitute entries and returned the deposit money.

At the meeting last Friday, Lieut.-Col. M. O'Gorman, representing Great Britain, argued that the F.A.I. had no power to alter the rules drawn up by its own committee six months before, and had broken its own rules by attempting to do so. The Italian delegate, General Piccio, took the opposite view and claimed that the Italian entry had been

in order. The French delegate, Capt. de l'Escaille, supported the Italian view as legally correct, but urged that a friendly agreement ought to be reached so as to enable the contest to be held normally next year. An agreement, he said, was necessary in the interests of international sportsmanship and of the Federation itself. The matter is being referred to arbitration.

### Inquiry into French Military Air Crashes

THE official inquiry into the military air crashes at Chartres and Dijon on August 27, which resulted in 10 deaths, has been completed. It is stated that the cause of the crash at Dijon was the breakage of an essential part, understood to have been a vertical rudder. The entire class of 'planes to which these two belong has been put out of commission for complete overhaul. In one crash a large bombing 'plane, carrying six airmen, got out of control over the village of Chavannes, dived to earth, and burst into flames; all six occupants were killed. The second machine, a super-Goliath (four-engined), manned by a crew of six, caught fire in the air near Dijon and plunged to the ground. Two of the crew escaped in their parachutes, but the other four were killed.





## THE BALTIC CRUISE

### "Southamptons" in Scandinavia

**T**HE four Supermarine-Napier "Southampton" flying boats, under Group-Capt. Nanson, are continuing their flag-showing cruise around the Baltic. Copenhagen was reached on September 5. The Danish machines sent out to meet the flying boats missed them, as the "Southamptons" had taken the route south of Zealand instead of north, as originally intended. At Copenhagen the machines alighted off Refshale Island, and the English officers were received by Capt. Scheibel, chief of the Danish marine air station.

Leaving Copenhagen on September 9, the "Southamptons" arrived at Stockholm after a flight of just over 6 hours. Capt. Lübeck received the visitors on behalf of the Swedish Air Force.

Helsingfors was reached on September 13, and again the British visitors were most hospitably received and entertained. After a stay of three days in Finland the Flight left, on September 16, for Tallinn (Reval), the Estonian capital. The programme included a visit to Riga on Sept. 18 and 19.



THE SUPERMARINE-NAPIER FLYING BOATS AT COPENHAGEN :  
Group-Captain Nanson, in command of the Flight, being introduced to  
officers of the Danish Navy by Captain Scheibel, R.D.N.

# PRIVATE FLYING AND CLUB NEWS

## AN N.F.S. WEEK-END

**N**ATIONAL FLYING SERVICES, LTD., certainly did their best to continue making the Midlands air-minded during the last week-end. They started with a meeting at Tollerton, the aerodrome of Nottingham, on Saturday, September 13, and continued the next day at Sherburn-in-Elmet, the aerodrome for Leeds.

The Nottingham Club started flying in 1927 and, therefore, had a fairly ancient history before it was taken over recently by N.F.S. In the early days it had to operate at Hucknall Aerodrome, but now, the Corporation of Nottingham has built the aerodrome at Tollerton and it is here that N.F.S. have erected one of their standard country club houses and a hangar. These club houses are very comfortably arranged and are convenient in that being the same design as at the other N.F.S. provincial clubs, it is easy for visitors to find their way about at any club.

The meeting arranged for Saturday consisted of the usual events and started with an arrival competition. This was won by Mr. B. S. Allen in his Sports Avian (Hermes), who flew up from Heston and landed 1 min. 20 sec. after noon. The Sports Avian, by the way, is rather an exceptional aircraft, as although it possesses all the usual features of the open cockpit two-seater machine, such as folding wings, ample tankage and luggage space, it still manages to offer its owner a cruising speed of about 103 m.p.h., and that with the standard Hermes engine. For the man who prefers to be out in the open, and there are many such, and whose travels necessitate getting about rapidly, the Avian provides a very comfortable means of doing so. The extra speed offered over the majority of machines in this class allows the pilot a greater latitude in making out his schedule which greatly enhances the value of such an aircraft for long journeys. The cockpits are reasonably comfortable and with the new type of wind screens quite draught-free. The modified fuselage fairing which materially adds to the speed of the machine does, it is true, somewhat restrict the shoulder room, but for any except outside pilots this is not sufficient to cause discomfort. The metal foot-boards in the front cockpit transmit rather a lot of vibration at present, but it is understood that this point is receiving attention and will be bettered shortly. The controls are really delightful and all require about the same force to work, which makes the

Avian a pleasant machine to fly. On the Sports machine the undercarriage is the cross-axle type with a rather narrow track which makes it somewhat tricky when taxiing across wind, but the split axle type can be fitted if required, and if the owner is willing to sacrifice a little speed.

To return to the programme of the meeting, there was the usual fly past followed by a demonstration of the Autogiro.

The Nottingham Air Race was the next event, and this attracted six entries. This was three-laps, making a total length of about 30 miles. A table giving the handicaps and final speeds is given below. Col. Strange, on the Spartan Three-seater, caused a certain amount of amusement by leading the field round another lap, to, as he explained afterwards, extend the thrills for the public! That the remainder of the competitors all had the same idea and followed him obediently, was more funny than thrilling. Flt.-Lt. H. M. Schofield gave two excellent aerobatic displays, the first on a Moth and the second on a Desoutter, and between them was a race between some Dirt-Track Riders and the Autogiro and a Display by the Nottingham Gliding Club. The first resulted in a win for the Dirt-Track Riders, two of whom, led by a Mr. Wing, got home before the flying machine. The riding was lurid and magnificent, and even the enormous spikes in the outer covers of both wheels of each machine seemed inadequate for cornering in the rain. By the time the Gliding Display was started the rain was firmly established, and it forgot to leave off until the following morning! with the result that the Oil Depot which should have burned merrily after being bombed only flared for a short while, while Mr. John Tranum who had been billed to do a parachute drop, thought it wiser not to give his parachute a thorough wetting. He did, however, go up and wander about

the wings and undercarriage of a machine, and finally scaled the top centre section where he remained while the machine was landed. It was a little surprising that the management should have agreed to this form of amusement, and we sincerely hope that it is not repeated. It has always seemed to us an unnecessary risk to take before the public and one which can do no good. By this we do not wish to decry the skill of Mr. Tranum, who is probably unsurpassed in this sort of work and in the art of parachute jumping in this country, but we do maintain that should an unfavourable



**CANNES: A formation of Moths, flown by Capt. de Havilland (Puss Moth) Major Cordes, Comte de Beauregard, Mr. Edouard Bret giving a display along the sea front by the Palm Beach Casino. Mr. Bret is the son of the owner of the Hotel des Anglais, who is always ready to welcome English private owners and arrange aerodrome accommodation.**

### NOTTINGHAM AIR RACE

Place	Pilot	Aircraft and Engine	Start		Finish		Speed, m.p.h.
			min.	sec.	min.	sec.	
1.	Col. L. Strange	G-ABAZ Spartan 3-seater (Gipsy II)	1	27	18	30	102
2.	W. Andrews	G-AAWY Arrow (Hermes)	0	42	18	32	97½
3.	AVM. A. Longmore	G-AABV Bluebird IV (Gipsy I)	0	00	18	42	93
4.	G. Pennington	G-AAEU Moth (Gipsy I)	1	17	18	43	99½
5.	B. Allen	G-AAVU Sports Avian (Hermes)	3	23	19	11	110
6.	T. Shipside	G-AAUF Moth (Gipsy I)	1	17	—	—	—



bump have dropped him from the machine, the harm done to civil aviation would be out of all proportion to the value of his demonstration. No doubt, on this occasion, Mr. Tranum was actuated by sincere motives in endeavouring to enliven the meeting, but the ill-advisedness of his display is not mitigated thereby, and it can only detract from his excellence as a parachute demonstrator who takes his work very seriously and is always ready to make experiments, such as long-delayed drops, and so on.

The number of spectators was not very large, but they ran well into four figures and what is more important, they stuck out the rain in a heroic manner and saved the meeting from falling completely flat.

Sunday morning was certainly dry, but it was blowing hard and the majority of the machines at Tollerton, which were going on to Sherburn, found themselves fighting a head-wind of about 40 m.p.h. with the result that many took over an hour for the journey.



**A MILLIONAIRE'S CHOICE:** Mr. Marshall Field's Loening amphibian in which he and his bride (formerly Mrs. Dudley Coats) are making a honeymoon tour. (FLIGHT Photo.)

which is the very latest form of the C.19, and has not hitherto been flown in public. A flight in this machine is one of the most educative experiences obtainable. Up to Sunday we must admit to a certain reluctance to try this form of flying, but having done so, we are well on the way to being thoroughly converted. The idea of trusting ourselves to a mass of mechanical moving joints, carrying rotating blades, the aerodynamics of which are beyond the understanding of the majority of people, certainly did not prepossess us at first, but when the great advantages of the Autogiro are understood, we think that the majority of people will at least want to try it. Sunday was, of course, an exceptional day, inasmuch as the wind allowed us to climb at about 50 m.p.h. and still remain stationary with regard to the aerodrome, so that we had the real impression of ascending in an aerial lift. This was quite different to the feeling of climbing a normal aeroplane under the same conditions, because, of course it can be done with almost any machine given a wind of sufficient strength, and when we throttled down and climbed, as the Autogiro is able to, at a much slower speed, we were able to float backwards across the aerodrome while still climbing. It was distinctly novel to do nearly vertically banked turns and look at the ground through the rotating blades, and a not altogether pleasurable sensation, but it was interesting to see that such steep turns could be made if necessary. Landing on such a day is, of course, the *piece de resistance* of an Autogiro display, and on this occasion Mr. Rawson brought her down nearly vertically from some 500 ft. The forward speed being practically nil, meant that we were just starting to go astern with regard to the ground as we were landing and with a small burst of engine, we sat down and did not run a yard. On a subsequent demonstration, Mr. Rawson brought her down somewhat heavily, and she ballooned off the ground again, but instead of progressing forward with the usual kangaroo hops, she merely subsided on the same spot.

The take-off is equally spectacular—and useful—since with this wind the rotor was already making 80 r.p.m. by the time we had taxied into position so that it was unnecessary to use the swivelling tail plane which diverts the slipstream to increase the speed of the rotor before taking off. The wheels left the ground in 2 sec., and although the rate of climb is not very high, the angle is exceptionally so, with the result that it is possible to get the machine out of extremely small spaces. The present arrangements for the passenger's comfort are not too good and one has to wriggle through the rotor supports like an eel to get into the cockpit. Once seated, however, the view is good, and while flying, the cockpit is as comfortable as the majority of light aircraft. A noticeable feature of the flight was the fact that bumps made much less difference to the machine than they do to the normal light aircraft, and merely caused a slight temporary vibration in the rotor.

N.F.S. had managed to find still another "level-crossing," which Mr. H. Love proceeded to "bomb," and eventually



**FULL MEASURE:** Col. Strange with an enthusiastic load in his 3-seater Spartan.

The Sherburn programme was in the main a repetition of that of Tollerton; N.F.S. having standardised these things. The race between the Autogiro and the Dirt-Track Riders had to be abandoned as the weather was too bumpy to allow the flying machine—presumably one cannot truthfully say aeroplane—to make slow flat turns behind the motor cyclists. Instead, they had a race on their own, which probably made them go even faster in their endeavours to beat each other and they provided us with a really thrilling event, resulting in a win for Mr. Atkinson.

The Yorkshire Air Race resulted in another win for Col. Strange on his 3-str. Spartan, as he managed to get in 3 sec. ahead of Mr. Pennington. The weather was very rough, which slowed the speeds down considerably and naturally handicapped the slower machine very much. The Autogiro gave us two demonstrations and the progress this machine has made in the last year is really extraordinary. The model Mr. Rawson was flying was the C.19 Mk. III,

#### YORKSHIRE AIR RACE

Place	Pilot	Aircraft and Engine	Start		Finish		Speed, m.p.h.
			min.	sec.	min.	sec.	
1.	Col. L. Strange	G-ABAZ Spartan 3-seater (Gipsy II)	4	31	22	15	98
2.	G. Pennington	G-AAEU Moth (Gipsy I)	4	10	22	18	96
3.	J. Irving	G-AADA Moth (Gipsy I)	5	56	22	59	102
4.	S. Cliff	G-AAWY Arrow (Hermes)	3	38	23	01	90
5.	H. Humphries	G-AATE Bluebird IV (Gipsy I)	2	38	24	40	79
6.	P. Flynn	G-AAUO Redwing (Hornet)	0	00	—	—	—

made into a nasty wreck. Mr. Bentley, in his familiar golden Moth (Hermes) did some crazy flying. He put up a very spectacular show, although he must have been handicapped by the weather, and apart from the fact that some of his skidding turns were too near the crowd to please the management, his show was one of the best we have seen him do.

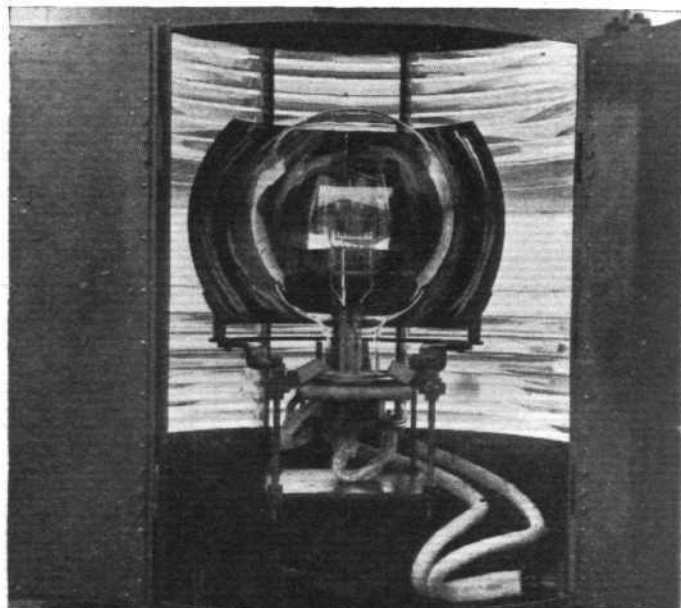
The last item on the programme was a jump by Mr. John Trantum. The wind was evidently higher than he had thought, because when he jumped from 2,500 ft., he shot across the aerodrome at a high speed, and in spite of spilling nearly all the way down, he was forced to land in a field some way on the far side. The crowd, however, greatly appreciated his drop, and there is no doubt that his event will remain a popular feature of these air meetings for a long time to come. It is not generally known by the way that Miss Spooner recently made a drop with an Irving parachute, as did Mr. Tapper of the A.A. aviation department with a Russell Lobe, so it looks as if Mr. Trantum may have to start a school giving dual instruction in this pleasant pastime!

Among the newer machines at both Tollerton and Sherburn was the Robinson Redwing. This, as our readers will know, is a side-by-side two-seater, with very pleasing flying qualities. The production model will be fitted with Genet IIa engine which since it has a little more power should give a little better performance without increasing the weight over much. It is a comfortable machine to fly in and the seating arrangement certainly has a great deal to recommend it. It does not allow the pilot a perfect all-round view perhaps, but this is not very noticeable except when taxiing. The controls are good and the undercarriage exceptionally so, so that her slow landing properties can be taken full advantage of, a point which should prove a good selling factor for new private owners.

The crowd which the meeting at Sherburn attracted was probably equal if not greater than that which came out for their last meeting there on July 13. Some eight special trains were run out and the Leeds district certainly sets an air-minded example to the majority of other districts, both enclosures were packed with people who stayed unto the end in spite of the inclement weather.

After making full use of the high cruising speed of the Sports Avian—and the wind—by returning from Sherburn to Heston in 1 hr. 14 min., we stayed on at Heston and were treated to a little night flying. As we announced last week Airwork, Ltd., in their usual pioneering way have together with Chance Bros., Ltd., made arrangements for

lighting Heston for about a week so that those many pilots who wish to qualify for their "B" licence, which necessitates night flying, could do so. It is doubtful whether even Messrs. Norman and Muntz, in spite of their enthusiasm, ever anticipated the flood of applicants which have applied for instruction, and when flying has been possible during the past week their two Moths have been fully booked up. Quite



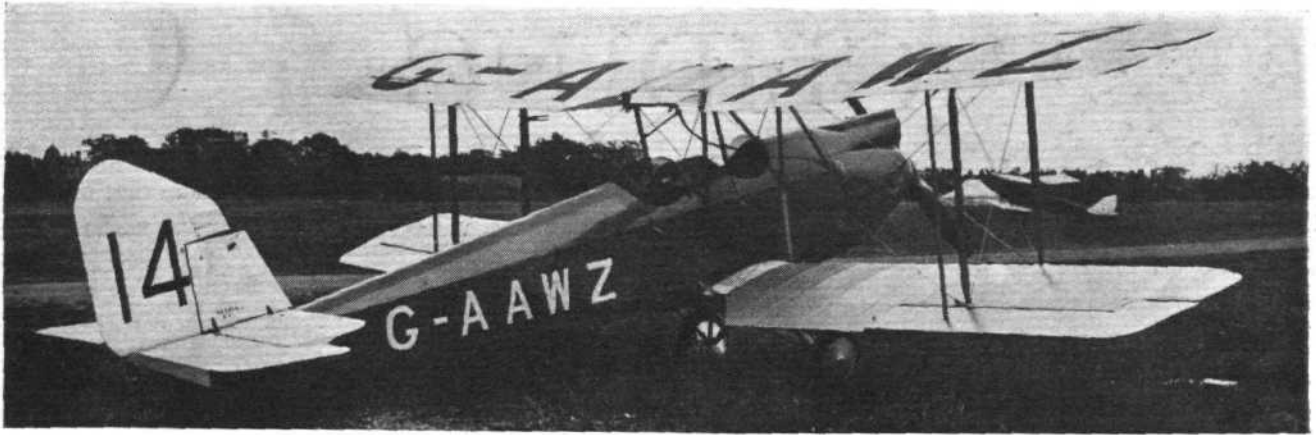
**THE CHANCE FLOODLIGHT:** An interior view showing the lamp, in the floodlight used at Heston. (FLIGHT Photo.)

apart from the instructional point of view, it is anticipated that many will soon want to take joy-rides at night. To see London from the air at night is an experience which few would miss if they knew just what they were missing. The air is generally still and calm and the lights of the city make an unforgettable sight. The aerodrome lighting consists of the usual small red boundary and obstruction lights, and an illuminated wind indicator. A flare track is laid down in



**FLOODLIT:** Two views, showing the Club House at Heston lit-up during the night flying demonstrations. The handy clean cut limits of the beam are well shown. (FLIGHT Photo.)





**THE SPARTAN "ARROW" :** This is the new version of the Spartan and was first shown in public in the King's Cup Race. Particular attention has been paid to the view from both cockpits. (Flight Photo.)

the appropriate place for landing and taking off, and a floodlight further lights this track. This floodlight is a mobile one, mounted on a trailer which is drawn by a Fordson tractor. The tractor is specially fitted for aerodrome work as it has a dynamo at the rear end to run the light and a winch at the front end which can be used for all manner of purposes during the day. This form of tractor is that most recommended for general aerodrome use as when the light is not in use it need not be standing idle, but any other form of tractor can be utilised if desired.

A special feature of the floodlight itself is the fact that the arc of illumination is a full 180°, and that the rays are cut off clean in a horizontal plane level with the top of the floodlight. The 10 kw. gas-filled lamp gives some 850,000 candle-power, which provides ample illumination up to 600 yd. in clear weather. The generator delivers a

pressure of 100-110 volts, which is a convenient voltage for temporary lighting or power circuits for repair or breakdown work.

Heston is an excellent place at which to stage an innovation of this kind, and the conveniences provided such as the restaurant and braziers out on the tarmac have made each evening a most enjoyable one for the many visitors who have gone there. The work entailed in arranging a demonstration like this is very considerable, and the return thereof by no means sure, so that both Mr. Norman and Mr. Muntz are to be congratulated on their enterprise, and we trust that they will reap their just reward. We can do with several more concerns run on similar lines, and under the same spirit as is found at Heston, and it is very gratifying to see that those who fly are patronising Heston in increasing numbers.

**THE LANCASHIRE Aero Club.**—The Club was fortunate on Sunday last, September 14, of having with it Wing-Com. Kingsford-Smith, whose flight round the world in "The Southern Cross" is one of the epics of aviation. Wing-Com. Kingsford-Smith was trying out his new aeroplane, "The Southern Cross Junior," which is an Avro Avian (Gipsy). An interesting point in the design of this aircraft is that the front cockpit is filled by a separate petrol tank, which allows him a flying time of some 17 hours. The machine has been designed for him for his prospective flight to Australia, which rumour has it has been postponed on account of his medical adviser's advice. Whatever use Wing-Com. Kingsford-Smith's new aeroplane is put to, the good wishes of the Lancashire Aero Club will follow him in his adventure.

**THE HAMPSHIRE Aeroplane Club.**—The month of August was, from the flying point of view, the most satisfactory so far in the history of the Club. Total hours flown amounted to 330, which was a record. Other records were 24 hr. 25 min. on August 16 and 101 hr. 20 min. for the week ending August 30.

The instructors, Messrs. Dudley and Marsh, have necessarily put in exceptionally long hours, as have the engineers, Messrs. Lenny and Riches.

Fifteen new members joined during the month and two

members qualified for their "A" licences and two for their "B" licences. Three achieved successful first solo flights.

On the last day of the month a garden party was arranged and some 300 members and friends who turned up appeared to have an entirely enjoyable day.

**CINQUE PORTS Flying Club.**—In spite of bad weather during August, no less than 387 flights were made, totalling 141 hrs. 50 min., with three aircraft in commission. This is really an excellent result, especially as solo flying was much restricted during the first fortnight of the month, owing to congestion on the aerodrome, and in the surrounding atmosphere during the presence of No. 601 Squadron A.A.F.

The lifting of the Air Ministry's ban on the acceptance of foreign subjects as members has produced immediate results, and amongst pupils under training this week are an Indian of Ceylon, an Italian and a Chinese. We already have in addition, an American, a Frenchman and several Indians as members, and expect shortly two more Frenchmen and another Chinese. Mr. Brown is becoming quite expert at translating the various accents and dialects which pass over the telephone in the air, as he had some excellent training at this earlier in the season when some of our Irish friends were here. There is no truth in the rumour that our Ground Engineer is holding Evening Classes in the Lancashire dialect.



### Aircraft on the Screen

YET another film is released which utilises flying in its make-up. We have recently published short reviews of several films which have done this, but all these have had flying as their *raison d'être*, as it were. Now with *The Yellow Mask* a new period is entered upon when flying is used not as the chief item in the film but merely as padding and that, in a musical comedy! This has already been done on the stage in *Silver Wings*, but that it should now be done in a film can but mean that both the film directors and the public look upon flying as such an everyday thing that it can quite adequately be used as padding without it assuming more than its just share of importance, which is all as it should be. We have often said that when the daily Press cease to make splash headlines about flying accidents, and when the general public take flying entirely for granted, then and not until then can flying be said to be firmly established. With the presentation of this film it looks as if we are well on the way to this establishment.

The film itself, which is on view at the Regal, Marble Arch,

is by no means a good one, in that it gets nowhere. An attempt has been made to make a sort of musical comedy out of Edgar Wallace's "Traitor's Gate," with the result that it is neither a comedy nor a drama. All the *desiderata* of a successful drama are there, of course, and equally so the essentials of a successful comedy, but when mixed they lose the character of either and gain nothing. Lupino Lane is the bright sport of the lighter side and his acrobatic clowning is well worth seeing. The flying is brought in when the hero attempts to rescue his beloved from on board a Chinese yacht, with the result that his machine is shot down and spins into the saloon of the yacht; the pilot, however, gets away with it and emerges from the resultant debris at the feet of the object of his affections. We understand that the flying part was carried out at Shoreham by Southern Aircraft, Ltd., who specialise in any sort of work like this, and we also heard that the "shells" from the anti-aircraft gun "gave the machine a bit of a jolt," and after seeing the film we can be thankful that we were not asked to witness the show from that same machine.

# GLIDING

## GLIDING CLUBS IN EXISTENCE

- Bedford Gliding and Flying Club.**—Secretary, 5, Beresford Road, Bedford.
- Aircraft Club, Harrogate.**—Secretary, The White House, Starbeck, Harrogate.
- Belfast Gliding and Aviation Club.**—R.A.F. Reserve H.Q., Donegall Square, North, Belfast.
- Bolton Light Aeroplane and Gliding Club.**—Secretary, 7, Bute Street, Bolton.
- Bradford Gliding Club.**—Secretary, S. Young, 17, Roslyn Place, Bradford.
- British Gliding Association.**—Secretary, 44a, Dover Street, London, W.1.
- Bridlington Gliding Club.**—Secretary, Crescent Court, Esplanade, Bridlington.
- Channel Gliding Club.**—Secretary, R.A.F. Station, Hawkinge, Kent.
- Cononley and District Gliding Club.**—Secretary, 178, Skipton Road, Keighley, Yorks.
- Derby and District Aero Club Gliding Section.**—"Beachwood," Snelstone, near Cubley, Derbyshire.
- Dorset Gliding Club.**—Secretary, 4, Derby Street, Weymouth. Central Information Office, 5, Royal Arcade, Weymouth.
- Driffield and District Gliding Club.**—The School House, Gembling, Driffield, Yorks.
- Dumfries and District Gliding Club.**—Thornlea, Rotchell Park, Dumfries.
- Essex Gliding Club.**—Secretary, 20, Badlis Road, Walthamstow.
- Halton Gliding Club.**—Secretary, Halton Camp, Bucks.
- Herts and Essex Gliding Club.**—Secretary, C. F. Baker, 110, Dunmow Road, Bishop's Stortford.
- Ilkley and District Gliding Club.**—Red Lion Hotel, South Stanley, near Harrogate.
- Imperial College of Science Gliding Club.**—Secretary, Imperial College of Science and Technology, South Kensington, S.W.7.
- Isle of Wight Gliding Club.**—Secretary, 61, Swanmore Road, Ryde.
- Kent Gliding Club.**—Secretary, 14, King Street, Maidstone.
- Kilmarnock Gliding Club.**—Secretary, 7, Low Glencairn Street, Kilmarnock, Ayrshire.
- Lancashire Aero Club Gliding Section.**—Secretary, Avro Aerodrome, Woodford, Cneshire.
- Leicestershire Glider Club.**—Secretary, Turkey Cafe, Granby Street, Leicester.
- Littlehampton Gliding Club.**—Secretary, 17, New Road, Littlehampton.
- London Gliding Club.**—Secretary, 44a, Dover Street, London, W.1.
- Lincoln Gliding Club.**—The Manor House, Cherry Willingham, Lincoln.
- Matlock Gliding Club.**—Secretary, Welbeck Hotel, Nottingham.
- Malton Gliding Club.**—Secretary, Welburn, York.
- Manchester Gliding Club.**—"Cyntra," Poplar Road, Didsbury, Manchester.
- Merthyr and District Gliding Club.**—Secretary, "Ingleside," The Walk, Merthyr Tydfil, Glam.
- Midland Glider Club.**—Secretary, 17, Victoria Street, Wolverhampton.
- Newcastle Mechanical Club Gliding Section.**—Secretary, 27, Philiphaugh, Wallsend-on-Tyne.
- North Staffordshire Gliding Club.**—Secretary, 71, York Street, Basford, Stoke-on-Trent.
- North Cotswold Gliding Club.**—Secretary, Evesham, Glos.
- North Kent Gliding Club.**—Secretary, Warren House, Bexley Heath.
- Nottingham Glider Club.**—Secretary, Welbeck Hotel, Nottingham.
- Oxford and County Gliding Club.**—Secretary, Brasenose Farm, Cowley, Oxford.
- Portsmouth and Southsea Gliding Club.**—Secretary, 9, King's Terrace, Southsea.
- Sailplane Club of T.M.A.C.**—Secretary, 404a, King's Road, Chelsea, S.W.
- Scarborough Gliding Club.**—Secretary, Harcourt Chambers, St. Nicholas Cliff, Scarborough.
- Sheffield Gliding Club.**—Secretary, 14, Perigree Road, Woodseats, Sheffield.
- South Essex Aero Club Gliding Section.**—Secretary, 19, The Pavement, Chadwell Heath.
- Southdown Skysailing Club.**—14, Brunswick Street East, Brighton.
- Stirling and District Gliding Club.**—Secretary, Blairlogie Park, Blairlogie, Stirling.
- Surrey Gliding Club.**—Secretary, 24, Woodbridge Hill Gardens, Guildford.
- Wiltshire Light Aeroplane and Glider Club.**—8, Savernake Street, Swindon, Wilts.
- Winchester Gliding Club.**—Secretary, Fordington Road, Winchester.
- Worthing and District Gliding Club.**—24, Ripley Road, West Worthing.

## GLIDING CLUBS IN FORMATION

- Birmingham.**—P. H. Meanley, 105, Hunters Road, Birmingham.
- Birmingham.**—C. Williams, 41, The Avenue, Rubery, Birmingham.
- Fylde.**—C. V. Sharples, 1, Allandale, South Shore, Blackpool.
- Glasgow.**—A. C. Mitchell, Beachmore, Kilmarnock Road, Whiteways, Glasgow.
- London General Omnibus Co.**—E. Gordon, Garage, West Green, N.
- Ludlow.**—A. Handy, Bull Ring, Ludlow, Shropshire.
- Matlock.**—W. Walker, The Garage, Matlock Green, Matlock.
- Middlesex.**—D. Ussher, 36, Framfield Road, Highbury, N.5.
- Pilning, Glos.**—H. Sykes, New Passage Hotel, Pilning, Glos.
- Stockport.**—J. T. L. Mallard, Radio House, Sandy Lane, Stockport.
- Thanet.**—J. T. Huddleston, 17, Chapel Place, Ramsgate, or P. Turner, 13, George Street, Ramsgate.
- Cardiff.**
- Wolverhampton.**

**THE HALIFAX GLIDING CLUB.** At a meeting of the Halifax Gliding Club on Friday night, September 12, the report of a select committee on the question of a suitable site was received.

The Committee, after careful consideration and with the approval of experts, recommend a site which is naturally adapted for gliding and easily reached. Subject to the permission of the Town Council, an early start is predicted. A full meeting of all members will be called at an early date in order to elect permanent officials and committees.

The subscription has been fixed at one guinea, and membership forms may be obtained on application to the hon. sec., Mr. S. Redman, 94, Lister Lane, Halifax.

**THE WILTSHIRE LIGHT AEROPLANE AND GLIDER CLUB** has been formed at Swindon, and the hon. secretary's address is L. S. Scarlett, 8, Savernake Street, Swindon. Members enrolling up to September 25 will be Founder Members, and as such shall have the privilege of entry into the Club on payment of £1 1s. 0d. only. Members joining subsequent to this date will be required to pay an entry fee of 10s. 6d. in addition. The payment of subscription will entitle members to participate in all activities of the Club until September 25, 1931. It is the Club's aim to commence flying with primary types of gliders as soon as their financial position enables them to complete negotiations, already in hand, to acquire the use of land and accommodation, and to purchase machines and equipment.

**ANOTHER CROSS CHANNEL PRIZE.** The Aeronautical Association of the Pas de Calais has offered a prize to the first Frenchman to cross the English Channel in a glider.

Two young aviators from Paris have taken up their quarters at a farm about halfway between Sangatte and Calais, and are said to be assembling a glider which is constructed on novel lines. It is a biplane. The upper and lower wings are of equal span of 36 ft. to 40 ft. The fuselage is about 24 ft. long.



An aerial view of the Wasserkuppe. The starting point for the more experienced soaring pilots is seen in the foreground



**LANCASHIRE Aero Club.**—Members of the Gliding Section of the Lancashire Aero Club will be disappointed in their anticipation of a return match with the London Gliding Club during next week-end. Unfortunately, the Chairman of the Club's Gliding Committee crashed the Glider on Sunday last, breaking its back and damaging its wings in such a way that it is practically impossible for it to be in commission by that date. Fortunately Mr. Meads was not seriously injured. His wing caught an obstruction on landing, causing him to cart-wheel with some violence, but, except for being temporarily stunned and feeling the effects of shock, he is all right.

**THE LONDON Gliding Club.**—In spite of various troubles concerning the tenancy of the gliding ground (it has been changed twice in six weeks, although always in the same neighbourhood), the enthusiastic assistance of several members has made it unnecessary to suspend the regular week-end meetings, which have now been in operation without a break for five months. As a result of this continuous system of instruction a considerable number of *ab initio* pupils are nearing the "A" Certificate stage, whilst G. Humby, the first and only "B" Certificate Pilot in the country without previous aviation experience, has made several good flights on the Club "Prüfling," and it should not be long before he qualifies for his "C" Certificate.

The Club is now operating on an excellent ground close to Dunstable, and on Sunday last, September 14, two more *ab initio* members, Messrs. Matthews and Symonns, qualified for their "A" Glider Pilot's Certificates. Both were trained by the Club.

The really keen interest that is taken by members in the gliding and soaring movement as a whole, is amply demonstrated by the fact that no less than five members, including three members of the Committee, were present at the recent International Sailplane Competitions at Wasserkuppe. A great deal was learnt from this visit, and the possibility of actual participation in the next Rhön Competition is being seriously considered. The Club would like to take this opportunity of thanking all their friends in Germany for all their kindness, and to inform other clubs that they are sure of a warm welcome if they visit Wasserkuppe, and are bound to learn a great deal which will be of real value to them. In fact, everybody met there seemed to have one sole object, to carry forward the gliding and soaring movement, regardless of nationality, sex, or religion.

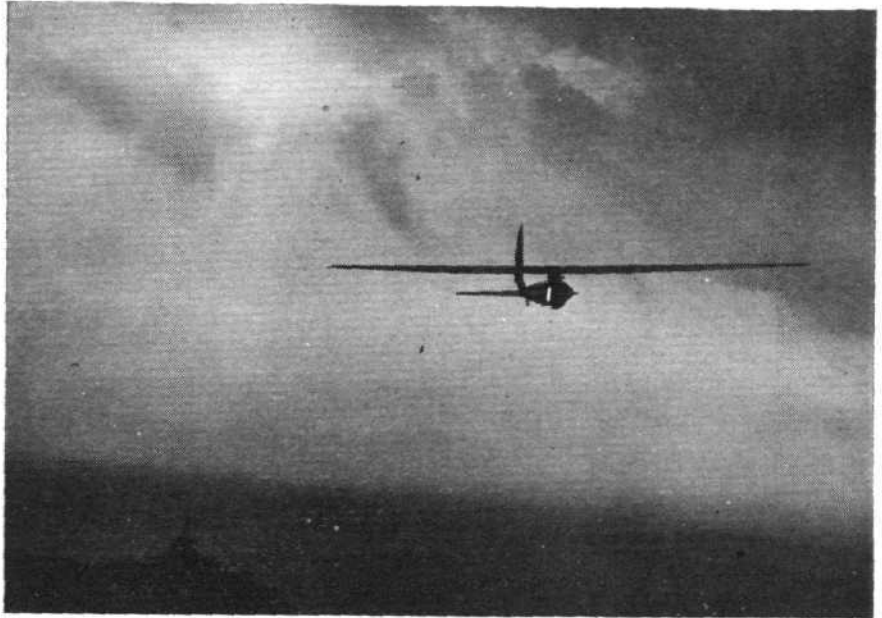
The recent list of Glider Pilots Certificates issued by the Royal Aero Club is particularly encouraging to the Club, as it shows that no less than 25 out of a total of 34 certificates have been issued to members of the London Club. As from September 10 last, the subscription for the remainder of the Club year, which ends on January 31 next, will be halved, thus becoming only two guineas, and those interested should write to the Secretary, The London Gliding Club, 44a, Dover Street, W.1.

**THE MATLOCK and Nottingham Glider Club.**—On Saturday and Sunday, September 13 and 14, a gliding meeting was arranged with the Surrey Flying Services at Carsington Pastures, near Wirksworth, when a demonstration was given by Herr Karl Magersuppe. On Saturday several thousand people assembled, but on Sunday there was a huge crowd, estimated at 10,000.

Capt. Barber, instructor of the Derby Aero Club, arrived in his Moth and gave a demonstration.

Mr. H. A. Searby and F./O. Spaight, of Nottingham, in the "Searby Special," a machine designed and built by Mr. Searby, made several flights.

During one of these Mr. Searby was caught by a gust of wind, and his machine crashed and overturned. The pilot was pinned underneath, but after the straps



The Luftikus. A successful soaring glider at the Wasserkuppe.

holding him had been cut he was found uninjured. Herr Magersuppe went up several times and gave a splendid exhibition, flying about two miles into the valley below.

Flying Officer Spaight secured his "B" certificate, and Mr. A. Leigh his "A" certificate on Saturday.

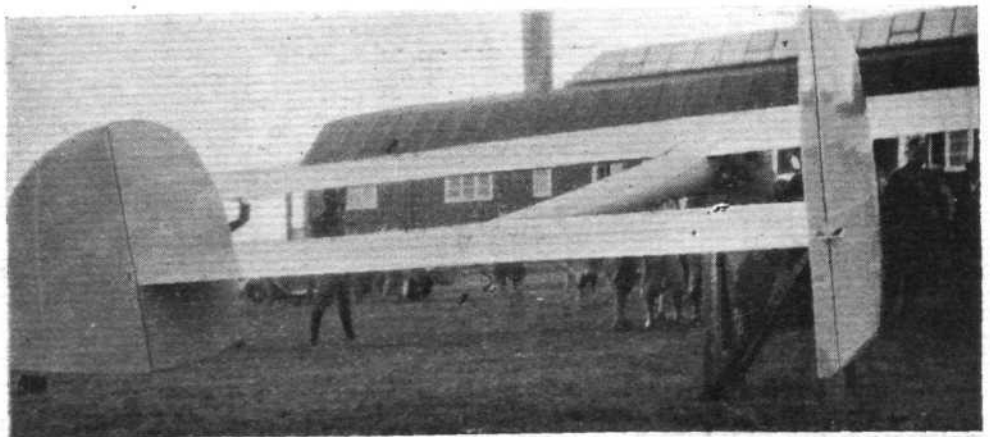
**A NEW LAUNCHING ROPE FOR GLIDERS.** The problems involved in launching gliders are entirely different from those of shock absorption, and hence from every point of view it is false economy to employ for launching purposes surplus stocks of ordinary shock absorber cord.

In order to obtain a good glider launch, it is essential that the energy supplied by the launching rope should be the maximum possible, and that the expenditure of this energy should be spread over a long interval of time, as opposed to the comparatively instantaneous expenditure required in shock absorption.

Hence the design and manufacture of efficient launching cord must be entirely different from those of ordinary shock absorber cord. The rubber strands or threads of which the rope is made store the launching energy during the stretching process, and this is, of course, the most important function of the rope—the covering acting merely as a protection.

It is evident, therefore, that not only must the rubber be of the best quality, but since its physical properties are seriously affected by light and age, it must be extremely well covered, and it should be of as recent manufacture as possible.

The Turner cord, made by Burley, Ltd., of 192, Tottenham Court Road, London, W.1, has been specially designed for the purpose of launching gliders with these essentials in mind; the very best quality rubber is employed; it is well protected by the covering; and each rope is dated during the process of manufacture so that its age can readily be ascertained.



The unorthodox tail unit of Austria. The new glider which has been built for Herr Kronfeld to create a few more records on.



Squadron-Leader C. N. Lowe, M.C., D.F.C. (FLIGHT Photo.)

## No. 43 (FIGHTER) SQUADRON

A VISIT to Tangmere on a bright summer day is a very enjoyable experience. It lies in a pleasant part of Sussex and whether one approaches through Chichester or through Arundel, one gets a glimpse of a very picturesque and ancient little town. Yet, though the rural beauties of Sussex lie close on the one hand, and the sea is not far off in the other direction, the ground round the aerodrome is open and flat. The aerodrome itself is excellent. Tangmere is one of the R.A.F. stations from which the good old Army hut has almost disappeared. There are many other stations not so fortunate. They remain as standing rebukes to those who used to accuse the Air Ministry of reckless extravagance on bricks and mortar. In place of the Army huts Tangmere has well built and quite pleasing red-brick buildings, mess houses, quarters, and barracks. The new sealed

pattern of officers' mess is very satisfactory, neither too large nor too small, compact, and withal, cheerful.

One cannot be for long on Tangmere without realising that No. 43 (Fighter) Squadron is a very smart unit. That is no surprise to the visitor who saw the R.A.F. Display at Hendon this year, or the subsequent displays at Andover and Leicester. The beautiful accuracy of the formation flying and aerobatics of No. 43 F.S. will not readily be forgotten. At Tangmere, however, one feels the atmosphere of smartness. It pervades all ranks, and is reflected by the Siskins and the Jaguars. Is a flight in a special formation ordered by the C.O., that formation is up in the air in a minimum of time. Is the whole squadron ordered to assemble in front of a certain shed, they are all present and correct without any delay or fuss. It is not surprising to learn that No. 43

F.S. has been chosen to represent the Royal Air Force at the centenary celebrations in Belgium, and one flight, consisting of three pilots and Siskins, with one reserve, under the command of the Squadron Leader, is going over to Brussels this week-end.

### The C.O.

The commanding officer who has brought this squadron to such a pitch of perfection is Sqdn.-Ldr. Cyril Nelson Lowe, M.C., D.F.C., and the photograph at the head of this page gives a "close up" of him flying his Jaguar-Siskin IIIA. The black and white dicing on the fuselage and the top of the upper planes is the distinctive marking of the squadron. The same device is repeated on the fin and elevators of the C.O.'s machine.

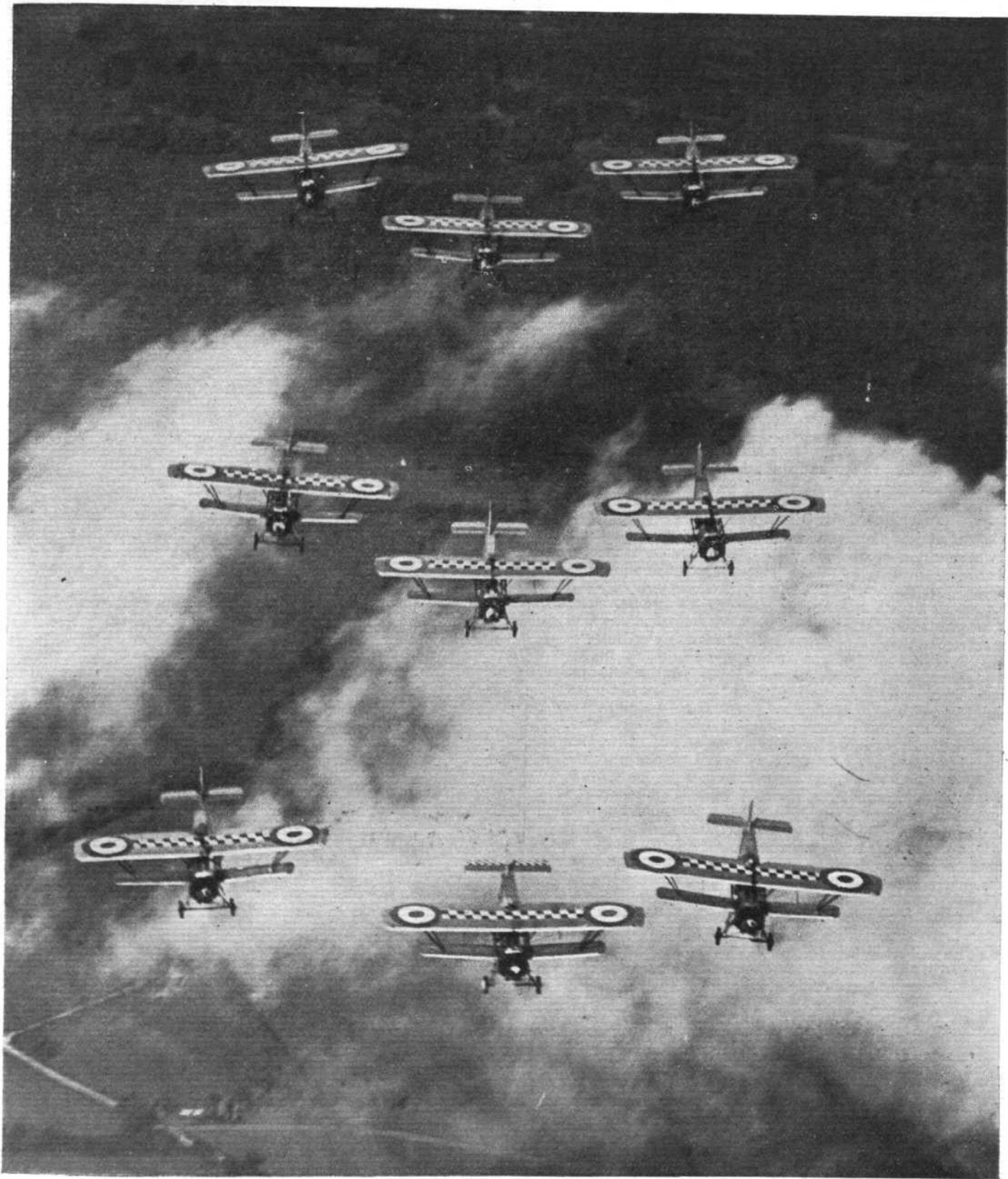
C. N. Lowe was born at Holbeach, Lincolnshire, on October 7, 1891, and in due course was sent to Dulwich College. He later went up to Cambridge (Pembroke College) and had just taken his degree when the War broke out. In August, 1914, he was commissioned



Officers of No. 43 F.S.:—Left to right, standing—P./O. R. F. Fletcher, P./O. J. Heber Percy, P./O. G. R. A. Elsmie; seated—P./O. E. R. Simonds, Flt.-Lt. I. E. Brodie, Flt.-Lt. E. Thornton, Sqdn.-Ldr. C. N. Lowe, M.C., D.F.C., Flt.-Lt. C. T. Walkington, F./O. R. J. T. Barratt, F./O. E. Esmonde.

(FLIGHT Photo.)





The Siskins of No. 43 F.S. in Flights Astern, stepped up. (FLIGHT Photo.)

in the A.S.C., and qualified for the 1914 Star, thus ranking as an "Old Contemptible." In September, 1916, he joined the R.F.C., and went to France a few days later. Of course, he became what was then called a "scout" (i.e., fighter) pilot, and did some hard and gallant fighting in the air. He won his Military Cross when he and another scout were escorting a bomb raid which was attacked by seven enemy aircraft. The two scouts promptly attacked the enemy, and both were almost crippled. Lowe's machine was set on fire, but luckily not to a fatal extent. The right top plane of the other machine was broken. In this crippled condition each was attacked by an enemy machine. But the Germans had caught two Tartars. Lowe's assailant was driven off by his comrade, and then Lowe, in turn, went to the help of the other and shot down the German who was

attacking him. How those two managed it, is a mystery, but it is on record that it was done.

The Distinguished Flying Cross was awarded when Lowe had shot down five enemy aircraft and driven down two others out of control. In particular, he once attacked two triplanes, though one of his guns was out of action, and shot one down in flames. On another occasion, he was leading a formation of eight scouts and with them attacked 26 enemy aircraft. Lowe shot down a Fokker biplane and then turned to help one of his own men. He followed the enemy down to 100 ft., and then half a blade of his propeller was shot away by fire from the ground. It is really astonishing that we still have Lowe with us.

There is, however, a very large section of the public, that section which loves the grand game of Rugby football, which

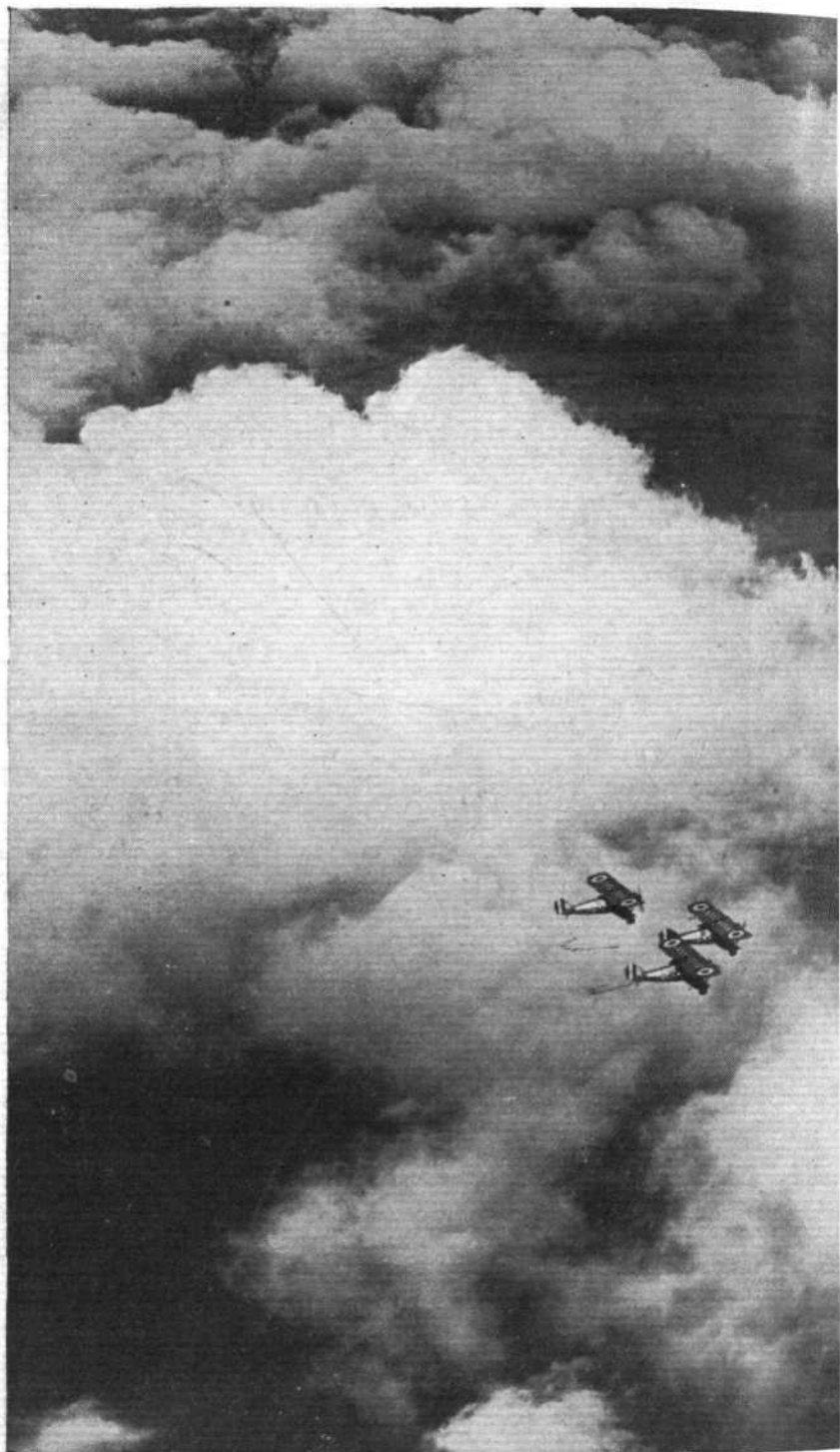
has never heard how Lowe won his Military Cross and his Distinguished Flying Cross, but which, nevertheless, holds his name in the highest honour. For some years after the war, the years known in Rugby circles as the "Davies-Kershaw" years, England was always the champion country. No small part of that success was due to the right wing three-quarter, whose name was C. N. Lowe. Few sounder men in defence and more dangerous men in attack have ever played for England.

No. 43 F.S. is heart and soul devoted to aerobatics and formation flying, and no healthier taste could be imagined for a fighter squadron. Some of the Siskins display special streamers from the interplane struts, different in design from the coloured streamers which mark the machines of the flight-lieutenants. These streamers are special distinctions awarded to pilots who satisfy the squadron-leader of their ability to shut off the engine completely at a given height, and land with propeller stopped within a given area. In 1928 Pilot Officer P. J. B. Chalmers was killed by flying into the Downs in a heavy mist, and to keep alive his memory, his father, Mr. R. A. Chalmers, presented a trophy to the squadron, in the form of a silver "Gamecock," as a prize for an annual inter-flight aerobatic competition. This serves to stimulate the interest which the squadron takes in this particular form of activity.

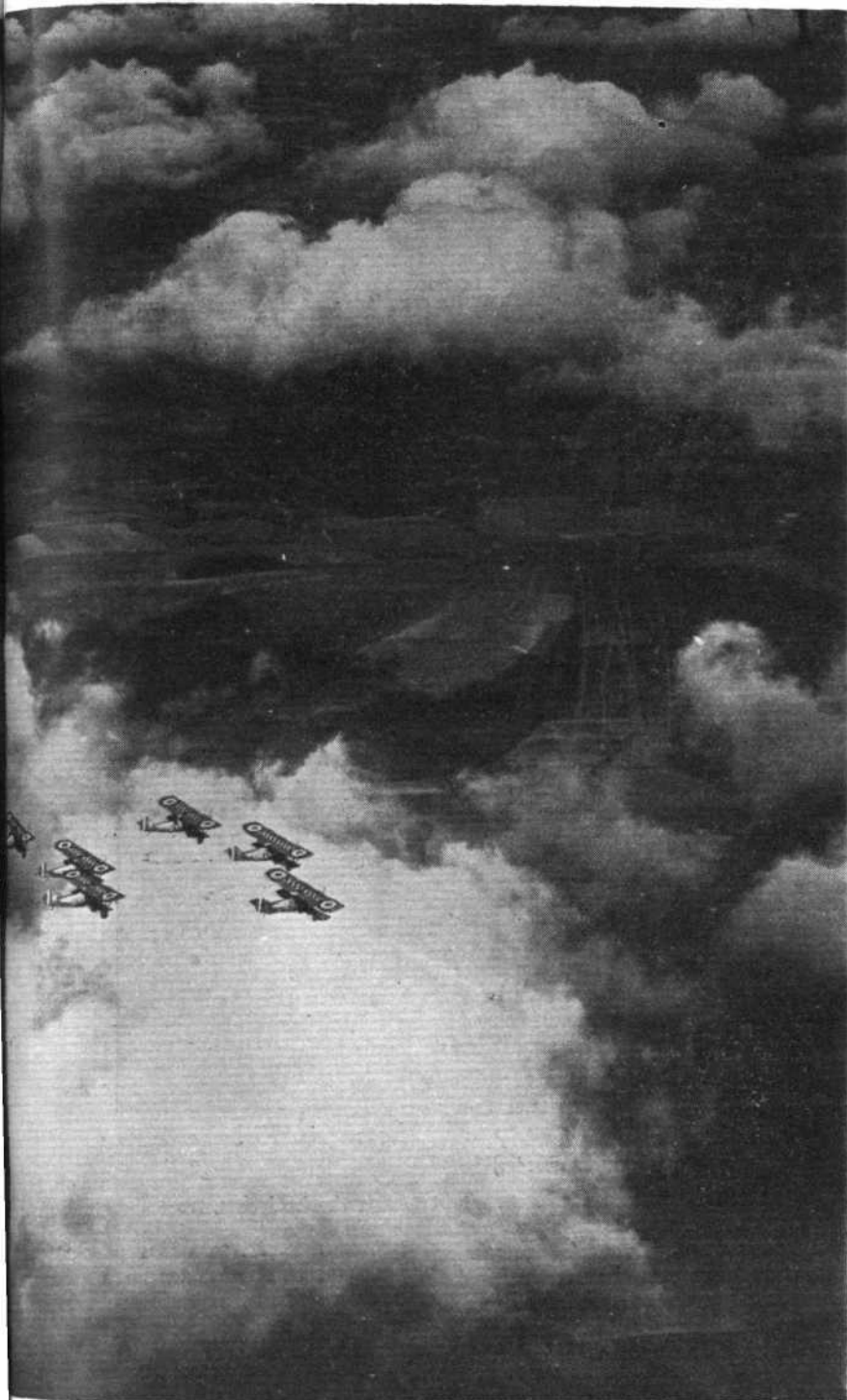
#### Training a Fighter Pilot

Perfection of team work in a fighter squadron is not reached without very hard work and careful training. A young pilot officer comes to the squadron from Cranwell or from a flying training school with some 30 to 40 solo flying hours to his credit. The new pilots usually arrive in the autumn, when the first period of training commences. The year's training is divided into four stages—namely, individual, flight, squadron, and command exercises. In the autumn and winter the young pilot officer is kept hard at work adding to the knowledge and experience which he has already acquired at the college and the flying school. Much of the training is on the ground. During this period the officer must attain a sound working knowledge of airmanship, aerial gunnery, fighting tactics, air pilotage, signals, general administration, and a good knowledge of the Home Defence scheme. He is also practised in handling his machine in all weathers and in finding his way across country with ease. It has been found that those officers who devote themselves to this individual training most conscientiously usually become the most proficient members of the squadron when they come to advanced work.

**The unique picture above shows No. 43 F.S. in Flights Astern with the wings looped together. (FLIGHT Photo.)**





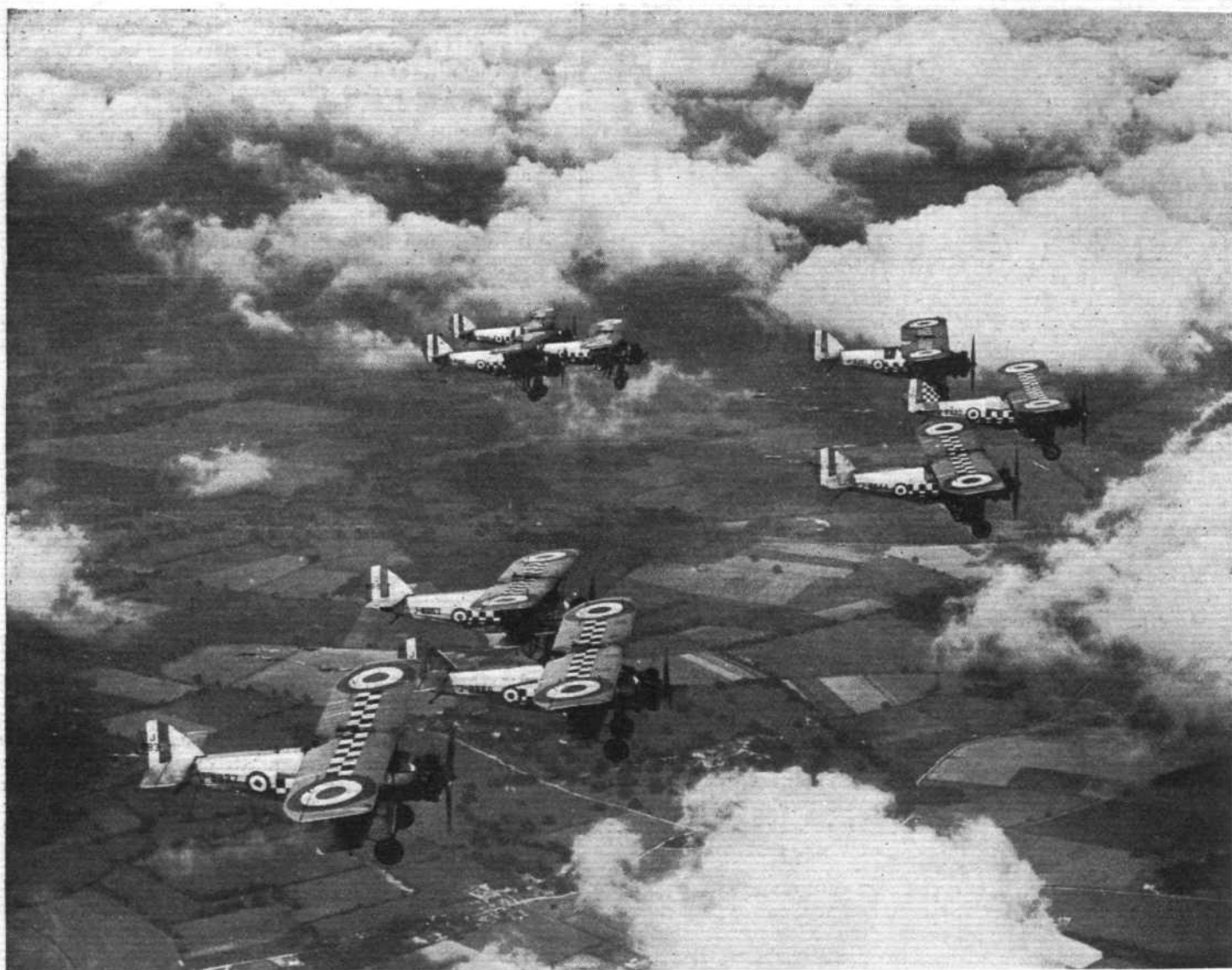


When the individual is proficient, he is then taught to take his place in his flight. He learns to keep formation in the air, and also when taking off and landing. During this period the young officer is practised in night flying until he can not only find his way about the country, but can also land his machine on a dark night without Holt flares—a very searching test of ability, but one which may make all the difference both to the individual pilot and to the whole scheme of defence in the case of war. Practice in aerial fighting and gunnery is constantly carried out by means of the camera gun, and pilots expose, on an average, 50 films in a year. During a year all squadrons carry out three weeks' firing with live ammunition on the ranges at Sutton Bridge, and at the end of the shooting period a competition is held for the "Brooke Popham Cup" among the best shots of all squadrons, and this is always keenly contested.

When the three flights are able to work as units, the next stage is to combine the three into one squadron, until that, too, becomes one unit. Tactical training then commences, and the squadron practises quick get-aways, altitude flying, and squadron attacks. Bomber squadrons often act as an enemy, and the fighter squadron practises intercepting them and attacking them when caught. The final test of polish is squadron aerobatics. By that time the pilots will have completed about 150 hours' flying since the start of training, and the squadron is ready to take part in the R.A.F. Display at Hendon, if called upon to do so. It is always a compliment to a squadron to be detailed for the Display, and this summer No. 43 F.S. provided the *pièce de résistance* by performing aerobatics with the wing tips in each flight fastened together by elastic ropes. The final stage of the year's work is taking part in command exercises. This year No. 43 F.S. formed part of the Blue Colony's forces in the air manoeuvres, and was stationed at Upavon, where it was mainly engaged on patrols to intercept the Red raiders. By the end of a year a new pilot will have carried out some 200 to 250 hours' flying. It is a hard year's work, but it is full of interest, and there is no doubt that the officers love it. The atmosphere of a happy squadron is always as unmistakable as that of a happy ship, and absolute perfection in work, especially in team work, is never attained unless every one is putting his whole heart and soul into the work. This, of course, applies to airmen as well as to officers. The group photograph which we publish is an example of this. A few minutes before it was taken the whole squadron had just landed from a formation flight, and had received all due attention from the riggers and fitters, dressed,

The group at the bottom shows No. 43 Fighter Squadron, officers, warrant officers, N.C.O.'s, and aircraftmen. (FLIGHT Photo.)





No. 43 F.S. in Squadron Formation. (FLIGHT Photo.)

of course, in overalls. But in less time than it takes to tell, the whole personnel of the squadron, less three airmen who were on leave, was lined up correctly dressed in uniform to have the group taken. It is not every unit which can achieve such smartness as that.

#### A Hard-Fighting Squadron

No. 43 Fighter Squadron has a fine record of stark fighting in the War. It was formed at Stirling, on April 15, 1916, and its first C.O. was W. Sholto Douglas. Among the first

pilots in the squadron was a 2nd Lieut. C. F. Uwins, now the famous pilot of the Bristol Aeroplane Co., Ltd. All the three original flight commanders, A. Lees, J. C. Russell and W. V. Strugnell, are still serving in the R.A.F. After a long delay, the squadron was equipped with Sopwith 1½ strutters, and crossed to France in January, 1917. It and another Sopwith Squadron, No. 70, combined to form the 10th Wing. By that time the Sopwith two-seater had become almost obsolescent, and was out-classed by the newer German machines which it had to face. Consequently, casualties

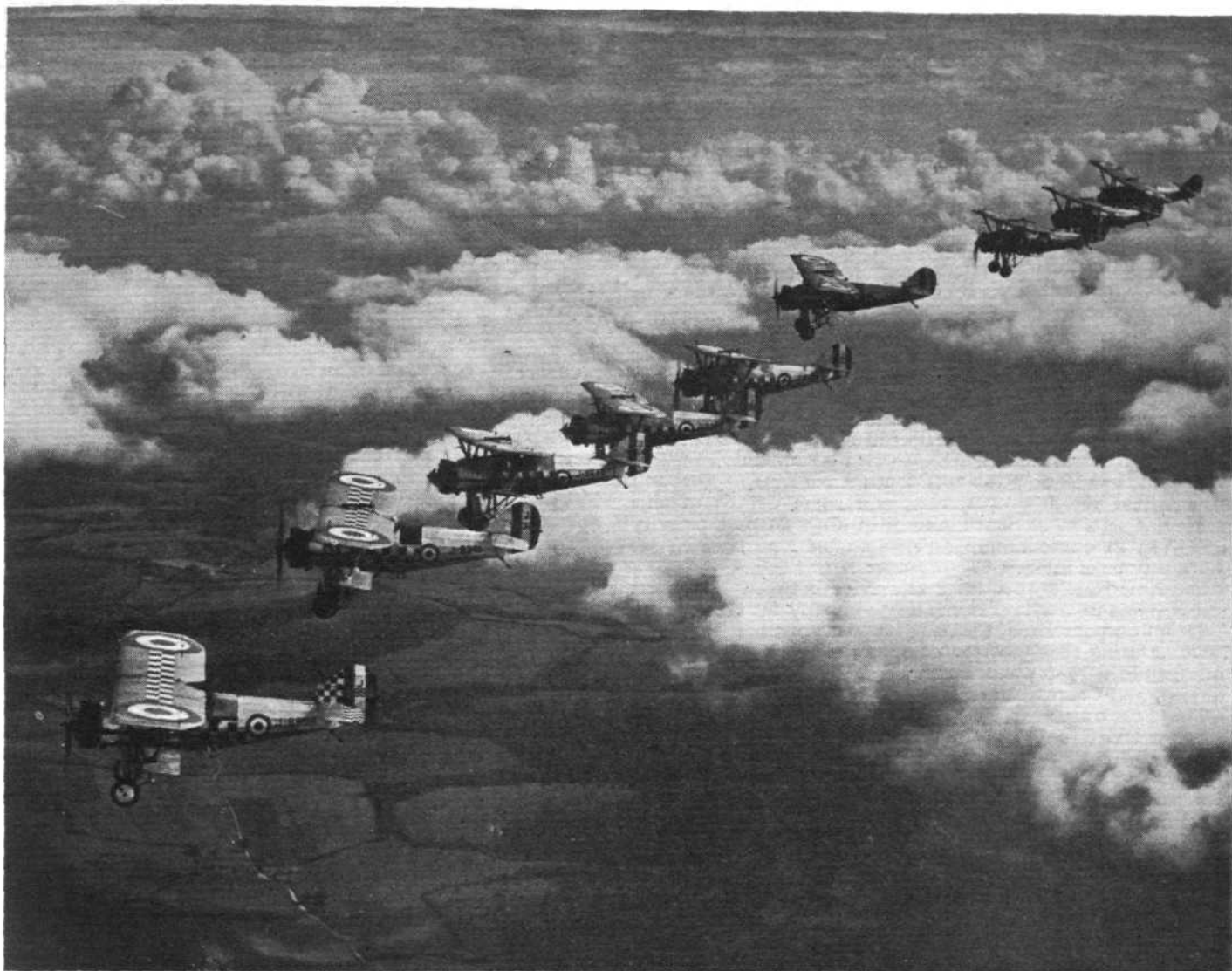
were numerous; but with a spirit which cannot be too highly praised, the pilots carried on their work and even contrived to inflict severe casualties on the enemy. At first, single machines were sent over the lines, but later it was found necessary to send not less than a flight in formation. Formation flying had to be improved, and great attention was paid to air gunnery. The enemy had to be lured into attacking the Sopwiths, which would deliberately invite attack by flying underneath, trusting to the marksmanship of the observers to pick off enemy machines. Conspicuous in the early fighting was Major A. S. W. Dore, who succeeded Major Sholto Douglas in the command in April, 1917. He now commands No. 604 (County of Middlesex) B.S. It is claimed for No. 43 Squadron that it initiated the practice of attacking ground troops during the third battle of the Scarpe in May, 1917.

Towards the end of 1917, it was decided to re-equip the



The C.O., Flight commanders, adjutant, warrant officers, and N.C.O.'s of No. 43 F.S. Names of Other Ranks, left to right; standing:—Cpl. B. McDonnell, Sergts. S. King, J. Willis, H. Wright, C. G. Wareham, H. Grant, H. Cadman, Cpl. G. A. Jackson, Sergts. J. A. Bish, G. R. Aggett, W. H. Smith, F/Sergt. J. C. Green, Cpl. R. Savage. Seated:—F/Sergts. E. Morgan, G. Warrenner, Sergt.-Major G. F. Paice, F/Sergt. L. H. Rogers. (FLIGHT Photo.)





No. 43 F.S. in Echelon to the right, stepped up. (FLIGHT Photo.)

squadron with the Camel and the first machine of that type arrived on September 3. The observers had to leave the squadron, and the parting must have been a sad one. But the advent of the Camel changed the whole complexion of the war for No. 43, as for other fighter squadrons. No longer had they to fight in an inferior machine. They were now as good as the best which the Germans could bring against them, and they could attack the previously formidable Albatros and Fokker triplane with confidence. Immediately the squadron's tale of enemy machines destroyed began to rise. In nine months' fighting with the two-seaters it had actually destroyed 14 enemy aircraft and sent 16 down out of control. In the following 10 months the Camels of the squadron shot down 16 aeroplanes and 11 balloons in flames, destroyed 66 other aeroplanes and one balloon, and sent 33 aeroplanes down out of control. The Camel was a great killer.

#### Two Great Air Fighters

Soon after the Camels had been received, two names begin to stand out in the records of the squadron's fighting, Capt. J. L. Trollope (later M.C. and bar), and Capt. H. W. Woollett (later D.S.O., M.C. and bar, Legion of Honour, Croix de Guerre). On March 17, 1918, Trollope attacked six enemy scouts over Maugre, shot one down out of control and chased the others off with their noses down. On the same patrol, over Armentières, Trollope attacked four enemy machines, set one on fire, and chased the others away. On another occasion over the Bois de Biez he fought 12 enemy machines for 10 min., drove them off to the east, and only desisted when all his ammunition had been spent.

On March 22, when the great German offensive was in full swing, No. 42 left the 10th Wing and joined the 13th, being stationed at Avesnes le Comte near Arras. It shortly set up a record, for one one day Trollope destroyed six enemy machines himself, while the total bag of the squadron was 12. But on March 28 Trollope was attacked by eight enemy scouts and forced to land behind the German lines, where he was taken prisoner.

April 11 was an even greater day. The squadron destroyed

13 enemy machines and sent one down out of control. On that day Woollett equalled Trollope's record by destroying six machines to his own gun. In 1928 Sqdn.-Ldr. Woollett was back with No. 43 Fighting Squadron as second-in-command. He now commands No. 23 Fighter Squadron.

#### A British "Circus"

Just before this great day, namely on April 4, 1918, the squadron had again changed its Wing. It remained at Avesnes le Comte, but combined with No. 80 and No. 2 Australian Squadron to form the 51st Wing. This Wing worked as did the German "circuses," and is stated to have "caused consternation" in the German air service. More than one instance is recorded of enemy aircraft turning tail and flying before the Camels. In the final British advance No. 43 played its full share. But in August, 1918, the squadron was gradually re-equipped with the Snipe. This rather slowed up the triumphant progress of the squadron, for it had to devote some time to practice with the new machines. Then it was chiefly employed escorting bombers, which gave less chance of increasing its bag. In the last days of the war the squadron's records mention some gallant fighting by a Capt. A. H. Orlebar.

At the time of the Armistice the total bag of the squadron was 35 enemy machines (including balloons) shot down in flames, 75 seen to crash, and 49 sent down out of control. Woollett destroyed 15 aeroplanes and 11 balloons, and Trollope 16 aeroplanes. Thirteen officers of the squadron were decorated for gallantry. Fifty-three officers and men were killed or missing, and 23 were wounded. Thirty-two were taken prisoners, and 12 were killed in accidents.

The squadron was disbanded at Spittlegate on December 31, 1919. It was re-formed on July 1, 1925, at Henlow, equipped with Snipes, under Sqdn.-Ldr. A. F. Brooke. In the Spring of 1926 it received Gamecocks, and it moved to Tangmere on December 7 of that year. On January 10, 1928, Sqdn.-Ldr. Brooke made over the command to Sqdn.-Ldr. C. N. Lowe, the present commanding officer.

F. A. DE V. R.



# AIR TRANSPORT

## PASSENGER AND MAIL AIR SERVICES IN SOUTH AMERICA Two Big American Air Lines Combine

FOR some time past air lines operating between the United States and South America, and in the latter itself, have been making considerable headway. Two of the big American concerns operating air services between the United States and South America—Pan-American Airways and New York, Rio and Buenos Aires Line ("Nyrba")—have just recently combined, and some details of this particular section of South American air transport activity are given in our contemporary, *Aviation News*, which we think may be of interest to our readers.

Pan-American opened its first service between Key West and Havana in 1927. The holding company for the system, Aviation Corporation of the Americas, was organized in June, 1928. During that year the company's planes flew 500,000 miles, and the routes were extended to serve the West Indies, Mexico, and Central America.

The following year the West Coast of South America, between the Canal Zone and Chile, was opened up to air transport by Pan-American-Grace Airways, jointly owned by the Aviation Corporation of the Americas and W. R. Grace and Co. The West Indies route was extended through the Windward and Leeward Islands to Trinidad and down the East coast of South America to Dutch Guiana. Service was also opened from the Canal Zone to Curaçao. In 1929 the system's planes flew 2,500,000 miles.

Early this year seven-day air mail service to and from the principal United States cities and Buenos Aires and Montevideo was inaugurated by extending the Pan-American route from Santiago, Chile, over the Andes to the Argentine and Uruguay. Venezuela was added to the many nations served by the system's mail and passenger planes. To take advantage of the heavy increase in air mail loads, the through service between the United States and the Argentine was put on a twice-weekly basis by Postmaster-General Walter Brown on July 1.

Next, Pan-American joined Rio de Janeiro to Paramaribo with a weekly northbound mail service. Planes are now flying each week a distance of more than three times around the world. For the year ending July 1, the flight mileage totalled 3,522,000. Thirty-thousand international passengers were carried without accident, and the total volume of international air mail transported by Pan-American had increased to 285 tons.

Nyrba was organized in 1929, and launched its Miami-Buenos Aires service by stages in January and February of this year. The company had mail and express contracts with South American countries only, and put much emphasis on passenger transportation. Pan-American has specialized in mail operation, although providing passenger accommodation now on most of its routes.

Nyrba flying equipment includes 13 Consolidated flying-boats, nine

Sikorsky S-38's, four Fleetsters, three Fords, and two Lockheeds. Pan-American will then have 131 planes; it already has 48 multi-engined machines. Nyrba also has developed an extensive chain of bases along the South American coast and the West Indies, has installed radio equipment and established supply and repair points. All of this will go to Pan-American and will be readily available for operation.

This is easily the largest consolidation of airlines in point of length of airways operated over that has been made in the history of United States air transport. Pan-American operates over 18,217 miles of airways and its planes fly about 80,868 miles each week. Nyrba has been operating over 9,500 miles of airways and its planes have been flying about 27,532 miles each week.

This action removes threats of a major battle between the two companies for supremacy among the American transport companies along the East Coast of South America. Pan-American established its first South American trunk line down the West Coast and then turned its attention toward the East Coast. By the time it got started Nyrba had begun operating. Then the question of an American air mail contract along the East Coast came up. Pan-American already had the West Coast contract. Plenty of rivalry was promised, but the Post Office hinted that the contract would be held in abeyance until some sort of mutual working agreement was made. The purchase was the result. Since then the contract has been advertised.

Under the absorption plan, duplication of schedules and



Map showing the air routes operated by the P.A.A. and Nyrba companies and rival concerns.



personnel will be eliminated. Nothing definite has been announced about the officials of the Nyrba company, but it is understood that William P. MacCracken, Jr., chairman of the Nyrba board, will be associated with the Pan-American, while Col. Ralph J. O'Neil, the president, may resign. It is understood that the Miami base has been closed already and most of the employees dropped.

The mileages, etc., of P.A.A. and Nyrba are given in the following table. Other air lines operating in Central and South America and the West Indies are shown in the accompanying map. The absence of British enterprise in this part of the world is to be regretted.

#### Mileages—Pan-American Airways System

Based on new schedules in effect July 1, 1930

Route.	Distance	Round Trips Weekly	Total Mileage
Miami-Nassau .. .. .	200	One	400
Miami-Havana .. .. .	261	Fourteen	7,308
Miami-Camaguey .. .. .	578	Three	3,468
Camaguey-San Juan .. .. .	860	Three	5,160
San Juan-Port of Spain .. .. .	752	One	1,504
Port of Spain-Paramaribo .. .. .	590	One	1,080
Paramaribo-Rio de Janeiro .. .. .	3,300	One	6,600
Miami-Cristobal .. .. .	1,412	Two	5,648
Miami-Tela .. .. .	1,036	Two	4,144
Tela-San Salvador .. .. .	255	Two	1,020
Brownsville-Cristobal .. .. .	2,215	Three	13,290

Brownsville-Mexico City .. .. .	500	Seven	7,000
Vera Cruz-Merida .. .. .	521	Three	3,128
San Jose-Puntarenas .. .. .	—	Six	540
Cristobal-Porto Cabello .. .. .	1,094	One	2,188
Cristobal-Santiago .. .. .	3,731	Two	14,924
Santiago-Montevideo .. .. .	867	Two	3,468

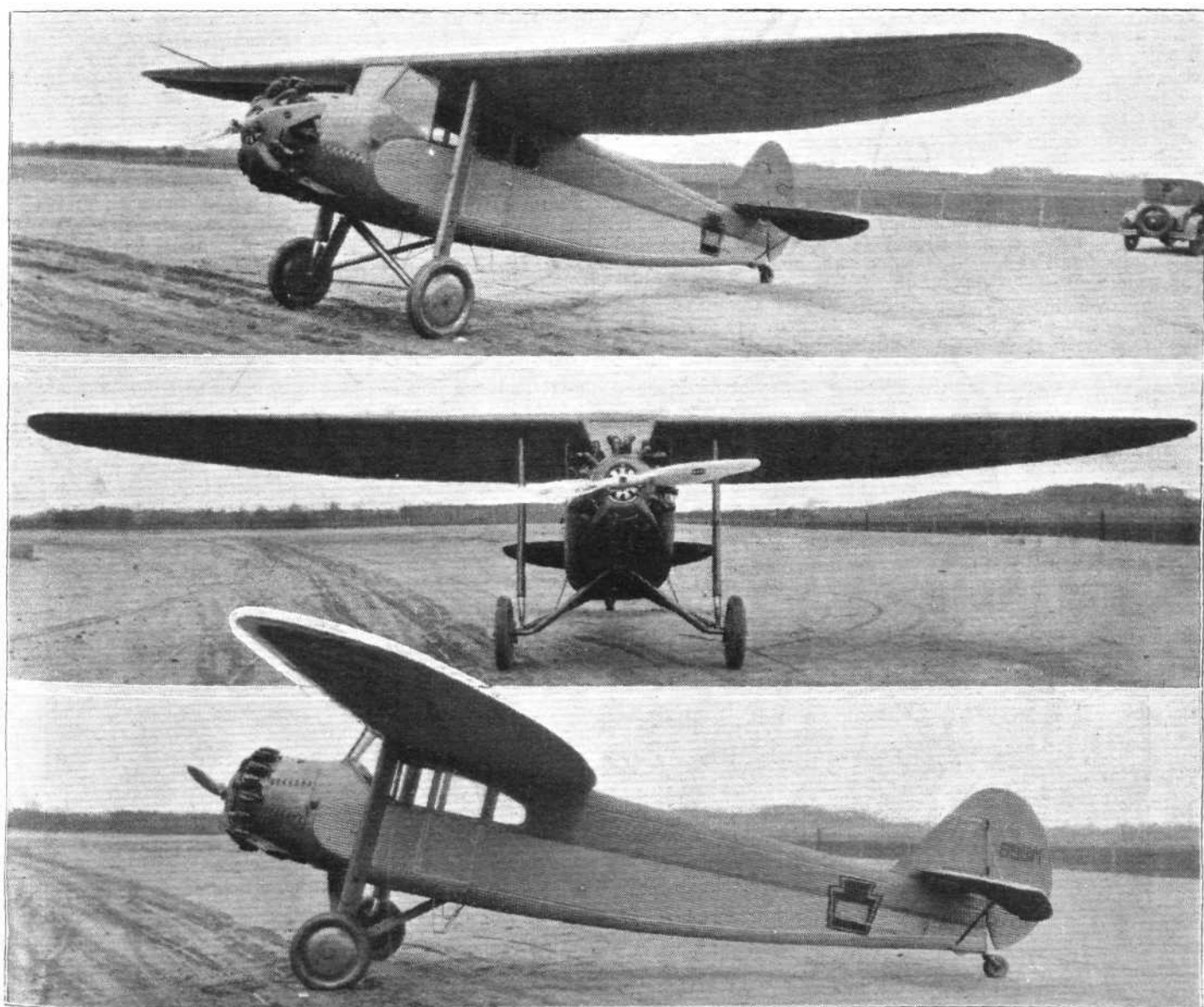
18,217 miles under schedule.  
80,868 miles flown weekly.

#### Mileages—New York, Rio and Buenos Aires Lines

Route.	Distance	Round Trips Weekly	Total Mileage
Miami-Havana .. .. .	261	Seven	3,684
Miami-San Juan .. .. .	1,445	One	2,890
Santiago-Buenos Aires .. .. .	732	One	1,464
Buenos Aires-Montevideo .. .. .	135	Twenty-One	5,670
San Juan-Para .. .. .	2,062	One	4,124
Para-Fortaleza .. .. .	690	One	1,380
Fortaleza-Rio de Janeiro .. .. .	1,655	One	3,310
Rio de Janeiro-Buenos Aires .. .. .	1,190	One	2,380
Buenos Aires-Yacuiba .. .. .	1,090	One	2,180
Buenos Aires-Mar del Plata* .. .. .	240	One	480

9,500 miles under schedule  
27,532 miles flown weekly

\* Discontinued for the season.



AN AMERICAN ALL-METAL MONOPLANE: The Thaden T-4, constructed by the Pittsburgh Metal Airplane Co., is a four-place cabin monoplane fitted with a 300-h.p. Wright J-6 engine. The monocoque fuselage is built up of duralumin tubing covered with corrugated alclad, and the multi-spar (alclad plate) wings, also with corrugated covering, employ the new Clark "S" design. This machine has a speed range of 57-138 m.p.h., a climb (sea level) of 1,000 ft./min., a service ceiling of 15,000 ft., and a cruising range (112 m.p.h.) of 550 miles. The span is 45 ft., and the overall length 31 ft. 9 in. The weights are: empty, 2,250 lb.; loaded, 3,720 lb.; wing loading, 13.58 lb./sq. ft.; power loading, 12.4 lb./h.p.

# AIRISMS FROM THE FOUR WINDS

## The Prince Flies to Le Touquet

THE Prince of Wales flew from Hendon to Le Touquet, on September 10, in his private aeroplane, piloted by Flt.-Lt. Fielden. He arrived at Berck aerodrome at 5.25 p.m., reporting an enjoyable flight, and in the evening he played a round of golf before dinner.

## The Master of Sempill's Scandinavian Tour

COL. THE MASTER OF SEMPILL, who is making an air tour of Scandinavia in his Puss Moth seaplane, flew from Stockholm to Reval on September 10, and the next day proceeded to Helsingfors.

## The Pacific Failure

Two American airmen, Harold Bromley (pilot) and Harold Gatty (navigator), left Samishiro beach (400 miles north of Tokio) early on September 14 on a flight to Tacoma, Washington, via the North Pacific. They were flying an Emsco high-wing monoplane, *City of Tacoma*, fitted with a 425-h.p. Pratt & Whitney "Wasp" engine. It carried 1,000 gall. of fuel. At 6.49 a.m. (Pacific time) they were reported over Charihoi (Kurile Island), and the Dollar Steamship Line of San Francisco received a message saying the airmen were flying in dense fog and were asking for help. With bad weather and fog ahead, and a leaking petrol tank, the airmen decided to return, and 25 hours after their start they landed at Aomori, 40 miles from their jumping-off point. They have decided not to make a further attempt this year.

## Another Atlantic Attempt

CAPT. ERROL J. BOYD, a Canadian pilot formerly in the R.A.F., accompanied by Lt. R. P. Connor (navigator), started on September 13 from St. Hubert airport, Montreal, on an attempt to fly across the Atlantic to Croydon, via Newfoundland. Their machine was the Bellanca monoplane *Miss Columbia*, in which Chamberlin and Levine made their flight from America to Germany in June, 1927. Bad weather, however, forced them down that night at Charlotte-town (Prince Edward Island).

## Graf Zeppelin's Trip to Moscow

THE German airship *Graf Zeppelin*, which, as reported last week, left Friedrichshafen for Moscow on September 9, reached the Russian capital the following morning. After circling over the city, escorted by Soviet aeroplanes, the airship, which carried 20 passengers, landed. It is reported that the Soviet Government has prepared a special issue of postage stamps to commemorate the visit, and a great agitation has started for the building of Soviet airships—a special fund for which has been opened. On September 11 the *Graf Zeppelin* returned to Friedrichshafen in 19 hours. During the *Graf Zeppelin's* flight it was reported that shots

were fired at her when near the Latvian frontier. The Soviet frontier guard deny that the shots came from them, but the Latvian guard, however, state that 16 shots were fired in three different places on the Soviet side of the border. On September 14 the *Graf Zeppelin* flew to Geneva, carrying 28 passengers.

## K.L.M. Strike Over

THE strike of pilots of the Dutch K.L.M. air services ended on September 15, the pilots resuming work on the old conditions. A committee of three—one to be appointed by the management of the air line, one by the pilots, and one by the Dutch Government—will, however, meet shortly to investigate the complaints of the airmen.

## Workmen's Aerial Outing

A PARTY, some 20 strong, of foremen from the various departments of Wolseley Motors, Ltd., of Birmingham, planned an aerial outing on September 6. They flew to Croydon in an Imperial Airways airliner, saw the sights of London, and then returned by air to "Brum."

## Italian Seaplane Squadron's Flight

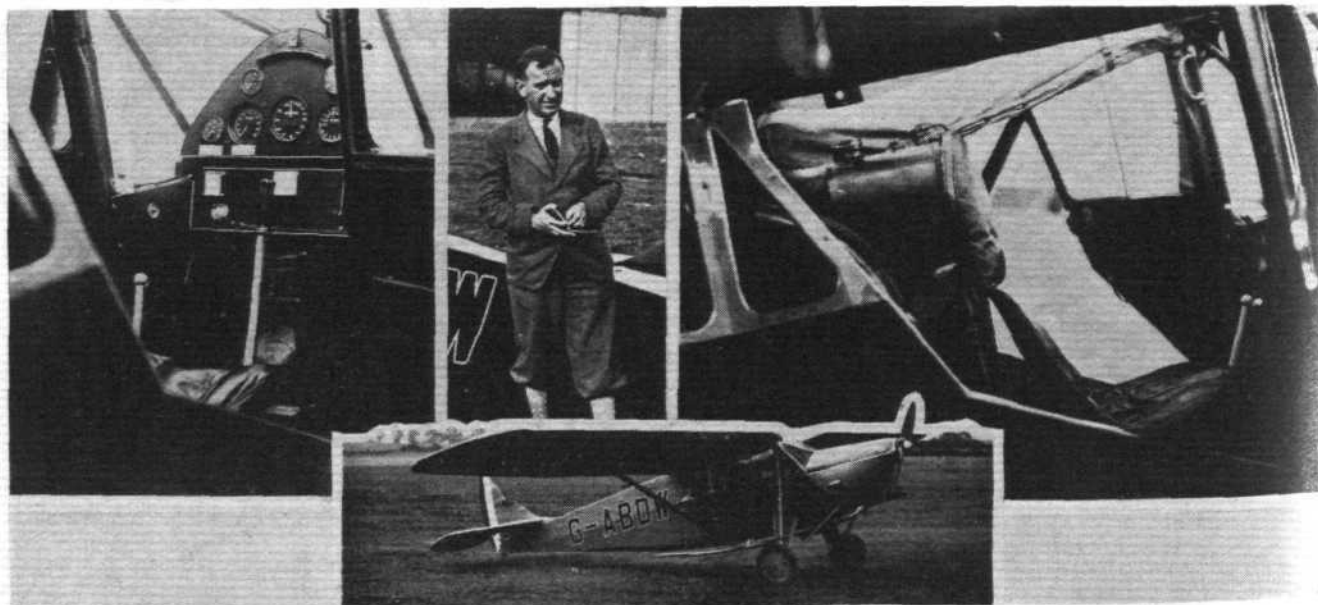
WHAT was apparently a test flight for the proposed Atlantic flight by a squadron of Italian seaplanes, was carried out last week. On the night of September 8, a squadron of nine Savoia S.55 seaplanes, under Gen. Balbo, set out for Cartagena. The following morning six of the machines started back for Italy, flying along the coast of Algeria and Tunisia to Bizerta, thence to Cagliari, where five arrived at midday. Gen. Valle, in the sixth machine, however, was forced down in the sea 60 miles off Cape Palos, and, owing to bad visibility, his descent was not noticed. Five hours later he and his companions were rescued by the Greek steamer *Agios Georgios*, and taken back to Cartagena. Gen. Balbo, with the other machines, reached Orbetello, early on September 11.

## Balkan Tour by Italian 'Planes

THE squadron of ten Italian aeroplanes, which left Udine on September 5, for a tour of the Balkan States, arrived at Belgrade and Sofia last week. Bucharest was the next stop, where they participated, with Polish and Yugoslav airmen, in the aerobatics tournament, held at the Janesa aerodrome.

## Seaplane Bombs Rum-Runners

A LATVIAN seaplane recently sighted, off the coast near Libau, a steamer—the *Anni*, of Danzig—which ignored signals to stop. The airmen opened fire with their machine-gun, and the steamer returned fire, thereupon the airmen proceeded to bomb her. This had the desired result, the steamer surrendered and was escorted to Libau. Here 10,000 litres of liquor were discovered on board.



ON HINKLER'S TRACK: Capt. F. R. Matthews, until recently Chief Instructor at the London Aeroplane Club, started from Croydon on September 16 on an attempt to reach Australia in a shorter time than the 15½ days taken by Hinkler in 1928. He is flying a de Havilland "Puss Moth" with Gipsy III engine. Extra tanks have been installed in the cabin, bringing the total petrol capacity up to 100 gallons. This should give the machine a still-air range of approximately 2,000 miles. Capt. Matthews left Croydon at 6.30 a.m. and landed at Belgrade at 4.15 p.m., having averaged 115 m.p.h. (FLIGHT Photos.)



### Miss Amy Johnson

THE Council of the Society of Engineers announces that it has been arranged for a dinner to be given in honour of Miss Amy Johnson's solo flight to Australia. It will be remembered that the Council elected Miss Johnson an Hon. Fellow of the Society, and the President will present her with the certificate at the dinner. A far more attractive feature of the dinner is the fact that Miss Johnson has kindly undertaken to give a talk after the dinner on "The Attention that I gave to Jason's Engine during my Flight." The date chosen for the dinner is Trafalgar Day, October 21, 1930, as that commemorates a British achievement on the sea, while Miss Johnson's was in the air. The dinner will be held at the Holborn Restaurant, tickets being 13s. 6d. each (or five for £3), exclusive of wines. Application for tickets should be made to the Secretary, 17, Victoria Street, Westminster, S.W., on or before October 16. Ladies and other non-members are eligible as guests of members. The name and titles of each guest should be given as all places will be allotted.

### Franklin's Last Camp Found

It is a strange coincidence that almost simultaneously the remains of Andrée the airman and his companions have been discovered by a sea ship and the last Camp of the expedition of Sir John Franklin, who commanded the ships *Erebus* and *Terror*, has been discovered by aeroplane. Sir John Franklin set out to search for the North West Passage in 1845. He intended to return two years later, and when he failed to appear no fewer than 39 expeditions set out in the next ten years to discover what had happened to him. Four of these were sent at his widow's expense. In 1859 a cairn was found at Point Victory in which was a record of the expedition, and this showed that the leader had died in June, 1847. Now Major Burwash, a Canadian Government explorer, with a pilot named Gilbert, has just made a flight to King William Island. There they found the last camp of the Franklin expedition. Graves arranged in order showed that the men had died one by one and been buried by their comrades. There is said to be evidence that many died from scurvy and the rest from starvation. During the flight a derelict ship was seen. The aeroplane also reached the magnetic pole and mapped the area round it by means of aerial photography. In addition, over 2,000 miles of Canada's Arctic coast line was photographed for the first time.

### The Andrée Relics

THE Governments of Norway and Sweden have set up a committee of four legal authorities to decide the questions of property rights in the relics of the Andrée expedition which have been found at White Island.

### Mlle. Bartie's Record

THE world's light plane duration record of 37 h. 28 min. 57 sec. established last week by the French airwoman, Mlle. Bartie, to which we referred in our last issue, was, we learn, accomplished on a Klemm monoplane fitted with a 40-50-h.p. Salmson engine. The petrol consumption for the flight was 550 litres.

### A. T. Cunningham's Australia-England Flight

ALTHOUGH it was reported that the Australian pilot, A. T. Cunningham, who started on a solo flight to England

from Australia in a "Genairco" biplane last month, had abandoned his attempt after being forced down on the Island of Flores (Dutch Indies), news is to hand that he is off again. Apparently he proceeded to Sourabaya, and reached Batavia on or about September 12. Here he was held up by magneto trouble, and on September 14 he landed in a swamp just outside the R.A.F. aerodrome at Singapore.

### Costes and Bellonte

THE French airmen Costes and Bellonte—who recently flew from France to America—set out on September 15 from New York in the *Question Mark* for Hartford, Conn., on the first stage of their Goodwill flight round the States.

### Russian Air Tour to the East

THREE Soviet aeroplanes, which started on a tour to Turkey, Persia and Afghanistan, arrived at Teheran from Angora on September 10.

### Australia-Java Air Mail

It is reported that there is little likelihood of Australia linking up with the Dutch air mail service to Sourabaya.

### Aerial Beacon in South Atlantic

It is proposed to construct an aerial beacon, having a range of about 50 miles, on the rocks of St. Peter and St. Paul, 600 miles off the coast of Brazil.

### Persian Art Treasures by Air

TWENTY-SEVEN cases of Persian art treasures, valued at about £1,000,000, were conveyed in four aeroplanes from Teheran to Abadan, on the Persian Gulf, whence they will be shipped to London for an exhibition at the Royal Academy next January.

### N.A.T. Air Lines' 99.8 Per Cent. Efficiency.

DURING the month of July, National Air Transport planes completed all but 318 miles of a scheduled 214,092 miles, a performance of 99.8 per cent., according to E. P. Lott, manager of operations, who said that he believed it to be a record for air transport operations. National Air Transport carries air mail and air express between New York, Chicago, Kansas City and Dallas.

### The Autogiro in Spain

SEN. DE LA CIERVA, continuing his European tour in the Autogiro, flew on September 4 from Madrid to Murcia, landing at Albacete *en route*. He gave successful demonstrations there to the Naval School of Pilots, and was given a wonderful reception by a huge crowd of people on the aerodrome. He reported that the Autogiro was giving complete satisfaction, and had done about 70 hours' flying since he left England.

### Miss Spooner's Parachute Descent

ON September 10, Miss Winifred Spooner made her first parachute descent, although she has been *wearing* her Irvin 'chute for a long time now! She ascended from the Letchworth aerodrome of the Irving Air Chute Co., piloted by Mr. Irving in the latter's Ryan monoplane. At about 2,000 ft. the side door of the cabin was opened and Miss Spooner slipped out feet first. She opened her 'chute quickly (and did not loose the ring!) and made a successful drop.

**A PREVIOUS AUSTRALIAN FLIGHT:** This illustration may be of interest just now, for it shows the first cabin monoplane to make a flight from England to Australia—the Desoutter ("Cirrus-Hermes") of Flying Officers Piper and Kay, taken on their arrival at Mascot Aerodrome on April 3 last.



## CROYDON WEEKLY NOTES

THE best news of the week is that from Monday, September 15, the K.L.M. Services are being re-started in full. This we learned from M. Duimlaar immediately on coming into the main entrance hall on Monday morning, and it did much to counteract the usual cheerlessness of that day. It was later confirmed by Capt. H. S. Leverton, who told us that the pilots had returned to duty at their previous rates pending the decision of an arbitrator appointed by the Dutch Government. This is exactly what we had been hoping for and suggested in our last two weeks' "Notes." The only pity is that it was not tried earlier, before the breach took place. May a lasting agreement be reached satisfying to both sides.

Surrey Flying Services have had another busy week of joy riding and school work. It would be difficult to estimate how much of their popularity is due to the efforts of "Joe" Chamberlain in persuading the Air Scared to become Air Minded. He is most persuasive in gathering clients and money, even though he has a commodity much more difficult to sell than, shall we say, flying helmets to suburban motor cycling clubs. Fred La Croix, who has recently returned from India, has again joined up with Surrey Flying Services and is to be found in some queer positions above us with "Timber" Woods.

I said some hard things recently about one aspect of Croydon Air Port—its surface and dust. So that it is not altogether an ill wind which has brought us rain since then. However, these same overcast skies and poor visibility have brought into prominence the excellent organisation and working of the Control Tower which is quite unique in its efficiency. During the past week pilots have been constantly asking for their positions and bearings by wireless and have afterwards expressed, with enthusiasm, their views on the confidence it has given them to know that they are so accurately and carefully looked after. Wherever one goes on Continental

aerodromes and amongst whatever nationality of pilots, always the opinion is that Croydon Control is far and away the best.

It is a pity that Miss Amy Johnson has had to abandon her tour owing to ill health. We happened to be present on her arrival at Shoreham and Brighton where she roused a tremendous amount of interest amongst the crowd. The joy-riding machines which had, up to then, been standing around practically idle, were filled to capacity after her speech and long queues formed up, keeping them busy until dusk. Had a little more consideration been paid to her and had she not been overworked so intensively she might have carried on her work over a much bigger area.

There were many from Croydon amongst the thirty or forty members of the Guild of Air Pilots and Navigators who gathered at Rules' last Thursday evening to welcome Squadron-Leader C. E. Kingsford Smith, M.C., A.F.C., and Mr. Stannage. It was quite an informal affair, to everyone's liking, and the whole atmosphere was most genial. After an introductory speech by Sir W. Sefton Brancker, the Master of the Guild, Kingsford Smith was prevailed upon to talk in that clear precise way which is so indicative of his character. After telling of all difficulties with which they met he paid a very generous tribute to his colleagues, and in particular to Mr. Stannage, whose splendid wireless work did so much.

The tragic accident to the Belgian Night Mail has spoiled an excellent record for regularity in night flying, a record which we hope will soon be built up again. May we assure the relatives and friends of Messieurs Sobry and Cooremans of our sincere sympathy in the loss which we, ourselves, share.

The traffic through Croydon is now at its seasonal height and last week we had 1,846 passengers and 88 tons of freight through.

M. L.

## NATIONAL AIR RACES, U.S.A.

THIS year's National Air Races, which were held at Curtiss-Reynolds Airport, Chicago, over a period of ten days, from August 23 to September 1, have been declared entirely successful, financially and otherwise. It is reported that the total attendance was somewhere about 360,000.

It is to be regretted that three fatal accidents have to be recorded for the ten days' meet, and it is, perhaps, surprising—considering the character of some of the events—that there were not more, although there were many minor mishaps and "close shaves." The three pilots killed were:—Lieut. De Shazo, U.S. Navy, who crashed in the U.S. Navy fighter race on August 27, when zooming his Boeing machine after crossing the line (the falling plane also killed a concessionaire); George G. Fernic, whose experimental plane got into a spin from which he could not recover; and Arthur Page who crashed in his Curtis-Conqueror "Seahawk" monoplane during the 17th lap of the Thompson Trophy race, on September 1. It was stated that Page was overcome by fumes from the exhaust, for he turned suddenly off the course, apparently trying to land, and the machine lost flying speed and crashed, being completely smashed up, and Page died later from his injuries.

It would be impossible for us to give in detail the day-by-day events of N.A.R., and we think the results of the individual races would hardly be of interest to our readers. There were, altogether, about 34 races spread over the ten days, in addition to many other events on each day's programme.

Except for these races, each day's programme was much the same, and it will suffice if we give a typical example or two, and refer to some of the special features. As previously reported in FLIGHT, Al Williams introduced four "foreign" pilots—Flight-Lieut. R. L. R. Atcherley (England), Marcel Doret (France), Murshal Pietro Colombo (Italy), and Frederick Loose (Germany), who gave daily exhibitions of stunt flying which were much appreciated. Atcherley flew a Blackburn "Lincock" (Armstrong-Siddeley "Lynx"), Doret a Dewoitine D-27 monoplane (400 h.p. Hispano), Colombo a Breda 18 (Armstrong-Siddeley "Lynx"), and Loose a Junkers "Junior" low-wing monoplane. The latter was damaged on the opening day, and Loose afterwards used a borrowed "Great Lakes" machine.

In addition to the above "exhibition" flights, Atcherley also gave demonstrations of crazy flying, which were undoubtedly one of the principal attractions of the meet. Crazy flying had not been seen before in America, and it is

said that Atcherley had been asked to include this in the programme. He agreed to, but before doing so he asked to be allowed to get in a little practice on the Curtiss "Fledgling" (170 h.p. "Challenger"), which he used for this event. So he went to a neighbouring aerodrome and commenced "rehearsing," the resulting contortions producing consternation among the spectators on the 'drome, who, unaware of the facts, thought a pupil had gone mad. A policeman was thereupon sent out on a motor cycle to "arrest" him, and when they eventually got him safely on *terra firma* the truth came out—that his actions were intentional. The general effect of this episode was so amusing that it was repeated as a regular feature on the N.A.R. programme—and proved to be one of the star turns! At least, that is how the story is told.

Other attractions of the Meet were the visits of several celebrities, such as Col. Charles Lindberg, who flew his Lockheed "Sirius" monoplane. Capt. W. von Goronau and his crew in their Dornier "Wal" seaplane, in which they crossed the Atlantic from Germany, and the appearance of several new or interesting machines.

The latter included the Diesel-powered "Waco Taperwing," the Burnelli twin-engined transport, the Bellanca "Airbus," the Fernic "Crusair" tandem monoplane (on which its designer was, unfortunately, killed), the special Curtiss racer, the Richfield Stearman biplane fitted with a J6-9 power plant and McLeod reversible propeller, the Northrop "Alpha" low-wing monoplane, the Waterman variable wing monoplane, the McDonnell "Doodle Bug" and three Autogiros.

In conclusion, we give below a typical daily programme, which with variations was carried through during the ten days of the National Air Races.

Glider Contests and Demonstration Flights. Men's Dead Stick Landing Contest. Balloon-bursting competition. Women's Dead-Stick Landing Contest. Racing event—Army Pursuit planes. Sportsman Pilot Race (1,000 cub. inches or other categories). Navy Planes. Civilian Cabin Race. Army Pursuit Planes. Civilian Aerobatic Exhibition. National Guard Race. "Liberty" Engine Trophy Race (an American "classic"). Arrival Men's Atlantic Derby (several classes). Marine Corps' Planes. Towed Glider Flights (Capt. Hawks). "Jimmy" Doolittle (Mystery Ship). Army Bombing Squadron Manœuvres. Al Williams and Foreign Pilots. Pusher Plane Flights. Parachute Jumping Contest. Band concert and demonstration flights. Army, Navy and Marine Corps Night Flights. Three "Fireflies." Fireworks and Anti-Aircraft Barrage.



# CORRESPONDENCE

[The Editor does not hold himself responsible for opinions expressed by correspondents. The names and addresses of the writers, not necessarily for publication, must in all cases accompany letters intended for insertion in these columns.]

## THE DEATH OF MR. GIDDY

[2331] I have received from the late Mr. Giddy's Squadron Leader a letter of which extract is attached. I should like to associate myself with all that is said, and further to add that during the year he was with us as Chief Instructor he established a very high standard of flying and general efficiency. Not only his exceptional ability as a pilot, but his extraordinary enthusiasm and wonderful personality makes his loss very deeply felt. He was a man of a type one seldom meets, who was respected and loved by everybody.

The extract from Mr. Giddy's Squadron Leader reads as follows: "I am anxious to state that without exception he was the best sergeant pilot of the scores that I have known. He was an exceptional man all-round. He carried out his many ground duties in an exemplary manner and excelled and revelled in his flying. His loss is deplored by every airman, N.C.O. and officer of this Squadron who knew him."

Phillips & Powis Aircraft (Reading), Ltd.

August 30, 1930.

C. O. POWIS, *Managing Director.*

(Mr. Giddy was killed while flying an old Martinsyde single-seater fighter, which developed wing flutter during a steep descent.—ED.)

## AS OTHERS SEE US

[2332] As it is some sixteen years this August since I purchased my first copy of FLIGHT, I feel that I should like to thank you for the pleasure, instruction and information which your paper has given to me during those years. Sentimentally, one regards the journal as something more than a friend, it has grown to be a definite part of one's existence.

How clearly one remembers the schoolboy enthusiasm with which one studied the war in the air, the struggles one had to build scale models of fighting craft, with only the once familiar line drawings of FLIGHT to guide one.

How later, one began to understand the technical details of the craft reviewed and to appreciate the beauty or efficiency thereof.

One remembers, too, that feeling of pride with which, late in 1918, one saw one's name among a host of other Flight Cadets in the columns of the old paper, and how during those halcyon weeks at St. Leonards one kept one's end up by quotations and often misquotations from FLIGHT.

Later, during the dark days of aviation, when the inevitable motor industry claimed one, FLIGHT was the connecting link with one's ambitions, although thin, and grievously so, were the grey-backed copies of those days.

Then 1922 with the call for short-service officers, and back once more to a service which was entirely new, and FLIGHT still to hand to help and work with us in that struggle to transform a temporary and much compromised service into an efficient and up-to-date Royal Air Force, capable of tackling the nation's civil and military aviation problems, keeping us primed with current events and constructive criticism, whilst we trained and organised.

Now those days, too, are passed, and like to Kipling's galley slave, one stands with others watching new men take our place and handle our sweep, and doing it well and efficiently. Only FLIGHT remains for most of us to ease that dull pain and longing which is the male equivalent to "mother love"; only FLIGHT can keep us in touch with our more fortunate brothers.

Old familiar faces look up at us from time to time, from its pages, loved and remembered names tell us of friends honoured and still in harness.

On behalf of myself and other freed galley slaves, I beg you give us more of the squadrons and "the service," help us to keep the past alive with R.A.F. news and photographs, for we have only you and Hendon to comfort us.



## Sir William Morris's Gift

ANOTHER splendid donation (£10,000) to the Radcliffe Infirmary has been made by Sir William Morris, to whose new aero engine we referred recently. Sir William's gifts to the Infirmary, of which he is president, now amount to £150,000.

## Big Orders for D.H. Moths

ORDERS totalling £70,000 for the supply of 101 Moth aeroplanes for training and general service duties have been

For the past—I thank you. For the future—prosperity and the best of luck.

West Africa,

July 31, 1930.

"CHUTIN."

(late 19 F. Sqdn.)

## "AERODROME TECHNIQUE"

[2333] I have read with great interest the remarks in FLIGHT of August 29, 1930, under "Croydon Weekly Notes," and register a mild protest when your correspondent writes that "aerodrome technique is not keeping pace with aircraft technique."

If your representative will visit any aerodrome my firm has constructed, he will find a "Hunterised," i.e., a perfectly smooth, hard surface, and if the seeding to grass is anything over 3 months old, we will guarantee that there will be "no realistic sandstorms, necessitating shut office windows or impeded traffic on the main Brighton Road."

In justice to James Hunter, Ltd., will you please give this letter as much publicity as is ceded to the paragraph to which I have drawn attention.

C. P. HUNTER,

Governing Director, James Hunter, Ltd.

Chester, September 1, 1930.

## ON ANGLES

[2334] With reference to the article by Mr. E. H. Atkin in the August 29, 1930, issue of THE AIRCRAFT ENGINEER, and my article in the May 30, 1930, issue, I should like to point out that the variation in  $\alpha$  is due to Mr. Atkin and myself taking different values of  $\beta$ .

I have misquoted  $\beta$  as 10 deg. in my heading, and it will be seen that I have used the intended angle of 30 deg. in my calculations. A comparison of the methods shows but a few minutes difference in the required angle  $\alpha$ .

H. PARKINSON.

Woolston, September 4, 1930.

## COMPASS TROUBLE IN NORTH ATLANTIC

[2335] Now that the airship R 100 has completed her experimental trip to Canada and is safely back at Cardington, it would be interesting to ascertain if there was any difficulty experienced with the navigation instruments off the North American coast.

The crew of the "Southern Cross," after their flight, reported being lost for several hours owing to the erratic behaviour of their compass, etc., in this vicinity.

Such information I feel sure would be of considerable assistance in the near future to the members of the expedition engaged on the England-Canada Air Route.

New York, August 26, 1930.

JOSEPH RALPH.

## NOISE ON TERRA FIRMA AND IN THE BLUE

[2336] I have been a regular reader since 1919, and I am inclined to agree with your correspondent (letter No. 2330), with regard to noise, etc., especially the horn-blowing practice of many.

I have driven one of the mechanical and exhaust racket-emulating motor cycles ever since 1917 and have always been of the opinion that the clutch and foot-brake are safer than the horn (even though it is an effort to many motorists to change gears).

Ninety per cent. of the motor-cyclists on the road use their machines only for work. There are too many of us, a necessary evil, and I suppose that is why snobbery is all we have to expect from the drivers of power-roaring-get-out-of-my-way-cars. Drivers who, if they cannot keep up with us on the road, make up for it by flying through the towns.

A. PELHAM-WAKE.

Salford, Surrey,

September 12, 1930.

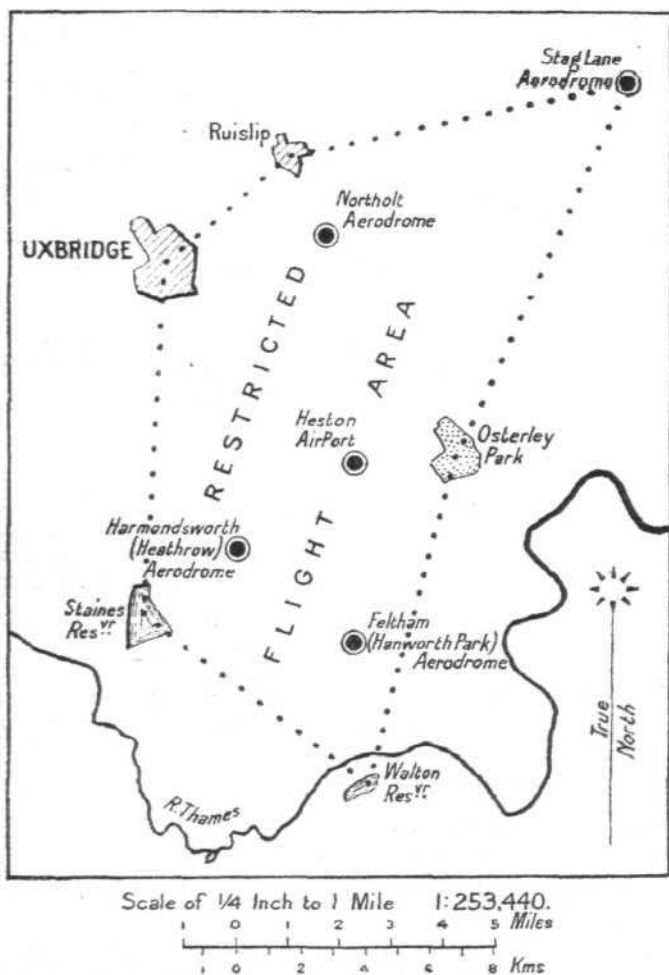
received by the de Havilland Aircraft Company, Limited. All are repeat orders: 83 Moths are for the British Royal Air Force, 8, including one seaplane, for the New Zealand Minister of Defence, and 10 for the Chinese Air Corps. Chinese military and civil pilots are all trained on British-built Moths, and four of the present order are to be equipped with quickly interchangeable float undercarriages for use as seaplanes on the Yangtze River at Shanghai.

# AIR MINISTRY NOTICES

## AIR MINISTRY NOTICES TO AIRMEN

### West London Area of Restricted Flight

1. In order to minimise, as far as possible, the risk of collision between aircraft flying from one to another of the under-mentioned aerodromes, the rules given in paras. 2-6 below should be observed.  
Feltham (Hanworth Park) aerodrome (National Flying Services, Ltd.).  
Harmondsworth (Heathrow) aerodrome (The Fairey Aviation Co., Ltd.).  
Heston air park (Airwork, Ltd.).  
Northolt aerodrome (Royal Air Force).  
Stag Lane aerodrome (The de Havilland Aircraft Co., Ltd.).
2. An area of restricted flight, shown on the accompanying map, has been defined and is bounded as follows:  
*North Boundary.*—Straight lines joining Stag Lane aerodrome, Ruislip and Uxbridge.  
*West Boundary.*—Straight line joining Uxbridge and Staines reservoir.  
*South Boundary.*—Straight line joining Staines reservoir and Walton reservoir.  
*East Boundary.*—Straight lines joining Walton reservoir, Osterley Park and Stag Lane aerodrome.
3. Flight within this area at an altitude of less than 2,000 ft. (610 m.) should be avoided, except as provided in para. 4 below.
4. Aircraft proceeding to or departing from an aerodrome located within this area, should fly between the perimeter of the restricted zone and the aerodrome in question by the shortest possible route, and should comply with



para. 36 of the Air Navigation Order, 1923, Schedule IV, Section V, i.e., if an aircraft about to land or take-off at an aerodrome finds it necessary to make a circuit or partial circuit, such circuit or partial circuit shall, except in case of distress, be left-handed (anti-clockwise).

5. Aircraft flying from one to another of the aerodromes given in para. 1, should proceed outside the boundary of the restricted zone, in an anti-clockwise direction.

6. All aircraft flying on courses which pass across the restricted zone, should, weather permitting, fly at an altitude of at least 2,000 ft. (610 m.).

7. It should be noted that R.A.F. aircraft will not comply with the above rules.

8. The creation of this area of restricted flight is temporary and experimental. Pilots are requested to forward criticisms of the working of the system, after a reasonable time has elapsed, e.g., about December 31, 1930, addressed to the Secretary (C.A.4), Air Ministry, Gwydyr House, Whitehall, London, S.W.1.

(General Notice No. 23 of 1930.)

### Flights to Egypt

1. The permission of the Egyptian Government must be obtained in advance for all flights to or through Egypt.

2. The Egyptian Government requires 15 days' notice of all such flights, and an application for permission to make the flight should, therefore, be made by the pilot, to the Secretary, Air Ministry (D.D.C.A.), Gwydyr House, Whitehall, S.W.1 (Telephone No.: Victoria 1216), in sufficient time to enable this notice to be given. Six weeks is normally required for this permission to be obtained by the Air Ministry, unless the pilot of the aircraft

authorises the application to be made by telegraph at his own expense. In this case, a deposit will be required.

3. The application should contain the following information:—

- (i) Type of aircraft and engine.
- (ii) Registration marks; special marks or name (if any).
- (iii) Names of pilot and crew.
- (iv) Names of passengers.
- (v) Particulars of cargo and equipment (including radio apparatus, spare parts, cameras, arms, etc.).
- (vi) Date and place of departure.
- (vii) Final destination.
- (viii) Route through Egypt, proposed landing places, refuelling stations, and arrangements (if any) made for refuelling.

If the aircraft is to pass through Egypt on a return journey, similar details, as far as possible, in respect of such journey, should be furnished at the same time.

If for any reason other than *force majeure*, the proposed route and landing places have to be modified, full details must be furnished, as early as possible, to the Secretary, Air Ministry (D.D.C.A.).

4. The permission, if granted, remains valid for one month from the date specified as that upon which it is anticipated the Egyptian frontier will be crossed.

5. It is important that a telegram, notifying the registration marks of the aircraft, the name of the pilot, the date and anticipated time of arrival, be sent to the British High Commissioner in Egypt (telegraphic address: "Prodrome Cairo") the night before the Egyptian frontier is crossed.

Arrangements will then be made by the Egyptian Ministry of Communications through the officer commanding the aerodrome, for the Egyptian Customs, Health, and other necessary authorities to be present at the arrival of the aircraft in Egypt. The pilot in charge of the aircraft should therefore report, immediately on arrival, to the officer commanding the aerodrome, in order to facilitate the clearance of the aircraft and personnel.

6. It should be clearly understood that aircraft arriving in Egypt without the prior consent of the Egyptian government having been obtained, will be liable to detention.

7. Civil pilots using Royal Air Force aerodromes in Egypt should report before departure to the Duty Officer, in order that the consent of the Commanding Officer may be obtained.

8. The attention of all pilots is directed to Appendix A—King's Regulations made under Articles 144 and 145 of "The Ottoman Order in Council, 1910" and "The Egypt Order in Council, 1915," and to Appendix B—Instructions for the Control of British Civil Aircraft and Pilots entering Egypt, published herewith.

9. CANCELLATION.—Notice to Airmen No. 67 of 1929 (Reprint No. 27 in N/A. General Notice No. 1 of 1930) is hereby cancelled, owing to the issue of fresh King's Regulations (see Appendix A).

### APPENDIX A.

KING'S REGULATIONS MADE UNDER ARTICLES 144 AND 145 OF "THE OTTOMAN ORDER IN COUNCIL, 1910," AND "THE EGYPT ORDER IN COUNCIL, 1915."

#### Aircraft Regulations.

1. "The Aircraft Regulations, 1929" (No. 1 of 1929) are hereby repealed, and in place thereof the following Regulations shall have effect:—

2. No person subject to the jurisdiction of the Court shall, unless the permission of the High Commissioner has previously been granted in writing, navigate or cause any aircraft to fly over Egyptian territory or territorial waters or cause such aircraft to land in or upon Egyptian territory or territorial waters.

3. Permission to land shall not be deemed to be implied in a permission to navigate or fly, but must be expressly applied for and granted, and the permission may in either case be granted subject to any conditions as to route, place of landing or otherwise as may seem expedient.

4. The above-mentioned permission of the High Commissioner is required in each case independently of such authorisation as may be required to be obtained from the Egyptian Government under Egyptian law, and may be revoked or qualified by the High Commissioner at any time.

5. If any person subject to the jurisdiction of the Court and navigating or causing to fly an aircraft shall land in Egypt without the above-mentioned permission having been granted, or at a place for which permission to land has not been granted, he may be required to proceed with his aircraft to such aerodrome in Egypt as may be designated by the High Commissioner, and he, and his aircraft (if subject to the jurisdiction of the Court), may be detained there or elsewhere until he shall have been granted permission to proceed by the High Commissioner subject to such conditions as to route or otherwise as may seem expedient.

6. If an aircraft which is subject to the jurisdiction of the Court, but is navigated by a person who is not so subject, shall land in Egypt without having previously obtained such authorisation as may be required to be obtained from the Egyptian Government under Egyptian law, it shall be lawful for the High Commissioner to order that such aircraft shall be detained in such aerodrome in Egypt as he may designate until the required authorisation by the Egyptian Government shall have been obtained.

7. If any aircraft subject to the jurisdiction of the Court and arriving from any place outside Egypt shall land at or be detained in any aerodrome in Egypt, such aircraft shall not proceed from such aerodrome, nor shall any goods be unloaded therefrom, nor shall any person subject to the jurisdiction of the Court arriving therein leave such aerodrome until the legitimate requirements of the Egyptian Passport, Quarantine, Customs and Excise authorities shall have been complied with.

8. It shall be a breach of these regulations to fail to adhere to the route prescribed or to land in any place for which permission has not been given as aforesaid, save in case of unavoidable necessity.

9. Any person committing a breach of these Regulations shall, on conviction, be liable to imprisonment with or without hard labour for a period not exceeding three months or to a fine not exceeding £100 or both.

10. Any aircraft subject to the jurisdiction of the Court which shall be adjudged by the Court to be in Egypt in contravention of these Regulations shall be liable to forfeiture. Such forfeiture may be ordered apart from or in addition to any penalty that may be imposed on any person under Article 7 of these Regulations.

11. In these Regulations the expressions "the High Commissioner" and "the Court" have the same meanings respectively as in "The Ottoman Order in Council, 1910," as amended by "The Egypt Order in Council, 1915."

12. These Regulations are not applicable to aircraft in the service of His Majesty nor to members of His Majesty's Forces employed on military duty.

13. These Regulations may be cited as "The Aircraft Regulations, 1930."



## APPENDIX B.

## INSTRUCTIONS FOR THE CONTROL OF BRITISH CIVIL AIRCRAFT AND PILOTS ENTERING EGYPT.

By the King's Regulations promulgated under Article 144 (4) of the Ottoman Order in Council, 1910, rules are established for the control of British civil aircraft and pilots entering Egypt from abroad.

In order to assist in the enforcement of these rules, the officer commanding a Royal Air Force station in Egypt at which a civil aircraft arrives from a place outside Egypt shall act as follows:—

- (i) In cases where notification has previously been received from the High Commissioner and transmitted to the Commanding Officer through the usual channels that permission has been granted for such aircraft to land at the aerodrome, he shall, immediately on the arrival of the aircraft, notify Headquarters, Middle East, who will in turn notify the High Commissioner and the Civil Aviation Department of the Ministry of Communications. Except as directed in paragraph (iv) of this Flying Instruction, he shall not exercise any restraint over the movements of the aircraft or any persons or goods arriving therein.
- (ii) In cases where no such notification has previously been received, he shall immediately notify the arrival of any such aircraft to Headquarters, Middle East, for the information of the High Commissioner, stating further:
  - (a) The nationality of the pilot;
  - (b) The place of registration of the aircraft;
  - (c) Whether the pilot has produced the permission of the Egyptian Government for such aircraft to land in Egypt.
- (iii) In cases falling within paragraph (ii) where the pilot is a British subject or protected person, he shall detain such pilot, and where the aircraft is registered in the British Empire he shall detain the aircraft, until he shall have received from Headquarters, Middle East, notice of instructions from the High Commissioner, and shall exercise thereover any such restraint as may be ordered by the High Commissioner.
- (iv) In all cases he shall immediately notify the Egyptian Passport, Quarantine, and Customs and Excise authorities of the arrival of any aircraft and shall not allow the aircraft (if registered in the British Empire) to leave the aerodrome, or any goods to be unloaded therefrom, or any person (being a British subject) to leave the aerodrome until the legitimate requirements of such authorities have been complied with.
- (v) In all cases he shall immediately notify Headquarters Middle East, for the information of the High Commissioner and the Civil Aviation Department of the Ministry of Communications, of the departure of any such aircraft from the aerodrome.

\* This reference to "Article 7" should apparently read "Article 9."

† These King's Regulations are not to be confused with The King's Regulations and Air Council Instructions for the Royal Air Force.

(General Notice No. 27 of 1930)

## Examination for Air Navigators

An examination for 1st Class Air Navigators' Licences will be held at the Air Ministry, Gwydyr House, Whitehall, London, S.W.1, on Tuesday, Wednesday, Thursday and Friday, October 7, 8, 9 and 10, 1930. An

examination for 2nd Class Air Navigators' Licences will also be held on Tuesday, Wednesday and Thursday, October 7, 8 and 9, at the following centres:—

Air Ministry, Gwydyr House, Whitehall, London, S.W.1;

The Office of the Air Ministry Representative, Heliopolis Aerodrome, Egypt.

Application forms, the syllabi, and conditions of examination may be obtained on application to the Secretary, Air Ministry (C.A.2), Gwydyr House, Whitehall, London, S.W.1, or to the Air Ministry Representative, British Civil Air Service, Heliopolis Aerodrome, Egypt.

Formal applications to sit at this examination must be made on form C.A.2.c. and together with the prescribed fees must have been received at one of the above addresses not later than Monday September 22, 1930.

(N.B.)—Applications to sit in London should be sent to the Air Ministry, and applications to sit in Heliopolis should be sent to Heliopolis.)

Candidates should give with their formal applications full details of any qualifications and experience they already possess.

Before a licence can be issued, candidates must have passed the prescribed medical examination, for which special arrangements will be made where necessary.

(General Notice No. 44 of 1930.)

## AIR MINISTRY NOTICES TO AIRCRAFT OWNERS AND GROUND ENGINEERS

## Compasses for Civil Aircraft

1. TYPES of compasses approved for use in civil aircraft are shown in Table III of Design Leaflet E.1 of the Airworthiness Handbook for Civil Aircraft (A.P. 1208).

2. Notice to Aircraft Owners and Ground Engineers No. 14 of 1929 requires certain guarantees from compass manufacturers in connection with the question of freedom from bubble formation.

3. In order that all concerned may know when the requirements have been complied with, arrangements have been made with compass manufacturers whereby each compass will be accompanied by a "Guarantee."

4. This guarantee will state that the compass has been inspected, that it complies with the appropriate specification and with the requirements of the Air Navigation Directions, and that it has passed a de-aeration test. All such guarantees will bear an Air Ministry Reference Number as evidence of validity.

(No. 29 of 1930.)

## Blackburn "Bluebird," Mark IV Aircraft: Oleo Leg Attachment to Fuselage

1. The attention of Aircraft Owners and Ground Engineers is drawn to Modifications Nos. 71 and 72, Attachment Bolts for Oleo Legs to Fuselage, Parts Nos. N.A. 124, Issue 3, and N.A. 7019, Issue 3, are now both provided with lubricators to obviate possible seizure in the trunnion blocks, Part No. N.A. 7207.

2. Any existing bolts which show signs of wear, which are bent or which are not provided with lubricators, are to be replaced immediately by bolts to the preceding Part Nos. obtainable from Messrs. Saunders-Roe, Ltd., East Cowes.

3. The fuselage fabric at the point of attachment of oleo legs must clearly expose the lubricator to facilitate application of the grease gun.

4. No Certificate of Airworthiness will be renewed until this modification has been satisfactorily incorporated.

(No. 31 of 1930.)

# THE ROYAL AIR FORCE

London Gazette, September 9, 1930  
General Duties Branch

Capt. A. C. Cumming is granted a short service commn. as Flight Lt. on Supplementary List (Aug. 25). Lt. G. C. Dickins, R.N., is reattached to R.A.F. as Flying Officer with effect from Aug. 25, 1930, and with seniority of April 27, 1925. The undermentioned are promoted with effect from Sept. 10, 1930:—FLYING OFFICERS TO BE FLIGHT LIEUTENANTS.—G. H. Huxham, C. R. Mason, P. Hill, G. V. T. Thomson.

Group Capt. R. E. C. Peirse, D.S.O., A.F.C., is placed on half-pay list, Scale B (July 8, 1930, to Dec. 31, 1930, inclusive). Flying Officer R. C. H. Monk is transferred to Reserve, Class A (Aug. 30). The short service commns. of undermentioned Pilot Officers on probation are terminated on cessation of duty (Sept. 10):—C. E. Alven, H. M. Chubb, G. Egerton-Hine, I. B. Hills-Spedding.

## Medical Branch

194814 Serjeant-Major, 1st Class J. Holt is granted a permanent commn. as Medical Quartermaster and Flying Officer (Sept. 8). M. T. O'Reilly, M.B., B.Ch., is granted a short service commn. as Flying Officer for three years on active list with effect from, and with seniority of, Aug. 18, 1930. A. W. Comber, M.R.C.S., L.R.C.P., is granted a temporary commn. as Flight Lt. with effect from, and with seniority of, Aug. 14, 1930. Squadron Leader (Quartermaster) H. Steele is placed on retired list (Sept. 8). Flight Lt. G. T. O'Brien, L.R.C.P., and S., is transferred to Reserve, Class D (ii) (Sept. 8). Gazette of Aug. 26, 1930, concerning Flight Lt. C. W. Coffey, L.R.C.P. and S., is cancelled.

## ROYAL AIR FORCE INTELLIGENCE

**Appointments.**—The following appointments in the Royal Air Force are notified:—

## General Duties Branch

Group-Captain: W. L. Welsh, D.S.C., A.F.C., to Marine Aircraft Experimental Establishment, Felixstowe. Supernumerary, pending posting overseas; 1.9.30.

Wing Commander: A. C. Maund, C.B.E., D.S.O., to Air Ministry (D.O.I.) for Air Staff duties; 8.9.30.

Flight-Lieutenants: F. Wright, to R.A.F. Depot, Uxbridge; 9.9.30. J. H. Hargroves, to Central Flying School, Wittering; 9.9.30. E. S. Steddy, to No. 21 Group Headquarters, West Drayton; 15.9.30. S. J. Smetham, to Air Ministry (D.O.I.); 9.9.30. F. P. Smythies, to R.A.F. Base, Gosport; 7.9.30. B. Cheesman, M.B.E., to R.A.F. Base, Calshot; 1.9.30. H. I. Cozens, to Special Duty List, whilst employed with the British Arctic Air Route Expedition; 3.7.30. A. B. Woodhall, to No. 111 Sqn., Hornchurch; 1.9.30.

Flying Officers: B. I. Carter, to No. 4 Stores Depot, Ruislip; 8.9.30. J. B. Veal, to Central Flying Schl., Wittering; 9.9.30. G. R. Montgomery, to No. 99 Sqn., Upper Heyford; 1.9.30. A. E. Louks, to R.A.F. Base,

## Dental Branch

Flight Lt. W. D. Guyler, L.D.S. (temp. Capt. General List, Army, Dental Surgeon), is granted a non-permanent commn. as Flight Lt. (July 1).

## Memorandum

The permission granted to Sec. Lt. A. E. Walsh to retain his rank is withdrawn on his enlistment in the ranks of the Army (Aug. 8).

## RESERVE OF AIR FORCE OFFICERS

## General Duties Branch

R. A. D. Foster is granted a commn. in Class A.A. (ii) as a Pilot Officer on probation (Aug. 27). E. H. Buxton is granted a commn. in Class A as Pilot Officer on probation (Sept. 9). Flying Officer R. A. Wills is transferred from Class A to Class C (Sept. 6). Flying Officer H. J. Phillips is transferred from Class A.A. (ii) to Class C (Aug. 30). Flying Officer A. E. Stewart relinquishes his commn. on completion of service (Sept. 2).

## Medical Branch

Flight Lt. J. A. Musgrave, D.P.H., relinquishes his commn. on completion of service (Aug. 17).

## AUXILIARY AIR FORCE

## Accountant Branch

No. 602 (CITY OF GLASGOW) (BOMBER) SQUADRON.—Flying Officer J. R. Stewart resigns his commn. (Aug. 19).

Gosport; 7.9.30. E. A. Airy and E. O. Wanliss, both to No. 2 Sqn., Manston; 9.9.30. A. O. Simpson, to No. 4 Sqn., South Farnborough; 9.9.30.

Pilot Officers: G. F. Humphries, to No. 10 Sqn., Upper Heyford; 1.9.30. G. M. Ievers, to No. 58 Sqn., Worthy Down; 8.9.30. A. G. Teideman, to R.A.F. Base, Gosport; 7.9.30. S. H. Bell and I. N. Roome, both to No. 2 Sqn., Manston; 9.9.30. K. N. Sayers, to No. 4 Sqn., South Farnborough; 9.9.30. C. A. Washer and H. G. Adams, both to No. 13 Sqn., Netheravon; 9.9.30. L. E. Chiswell and C. B. S. Coleman, both to No. 16 Sqn., Old Sarum; 9.9.30. S. W. H. Egan, C. J. Hansford, N. C. Hyde and H. J. Ward, all to No. 26 Sqn., Catterick; 9.9.30. J. L. M. Davys and E. E. Noddings, both to No. 1 Sqn., Tangmere; 9.9.30. D. P. A. Boitel-Gill and J. A. MacD. Teacher, both to No. 3 Sqn., Upavon; 9.9.30. T. N. Fraser and L. M. Hooper, both to No. 17 Sqn., Upavon; 9.9.30. J. S. Hamilton and B. N. Matson, both to No. 19 Sqn., Duxford; 9.9.30. L. R. Mouatt, to No. 41 Sqn., Northolt; 9.9.30. S. D. Slocum, to No. 43 Sqn., Tangmere; 9.9.30. C. R. Davies and H. E. Mayes, both to No. 56 Sqn., North Weald; 9.9.30. J. C. L. Brice and H. J. Wilson, both to No. 1 Sqn., Hornchurch; 9.9.30.

## MODELS

### A VISIT TO THE "MODEL ENGINEER" EXHIBITION

As usual, the "Model Engineer" Exhibition caused great interest and enthusiasm with both parents and children by the splendid display of models of every description. Our interest, of course, was in the collective display of aeroplanes. The first stand that was visited happened to be that of the Society of Model Aeronautical Engineers.

The outstanding models were made by Mr. Pelly Fry, Mr. Bullock and Mr. Van Hattum. Mr. Pelly Fry's compressed-air model was of exceptionally clean design. Mr. Van Hattum's model showed how a model can be made with the use of Balsa wood. There was also one machine which caused very much interest, designed and made by Mr. Whitby, driven by compressed air.

The next stand to be visited was the Wimbledon Aircraft Club. Here there was found the compressed-air model which holds records for Mr. D. A. Pavely. Mr. Holt showed some excellent models made from Balsa wood. At the time of our visit Mr. Holt was busy giving instructions to junior members of the club, while many onlookers were also interested.

The final club visited was the Model Aircraft Club (T.M.A.C.). It was rather difficult to get a close view of this stand as there was a demonstration being given on the running of compressed-air engines by Mr. Trevithick, who was also showing a splendidly designed compressed-air model. There were two outstanding models, flying scale models of "Hawker Hornet," and "Hawker Hart," the respective constructors being Messrs. Edwards and Austin.

The craftsmanship of all models on the stand was of a very high standard. There were four or five firms who had model aeroplanes, amongst whom were Gamages, D.A.P. Engineering Co., and Bonds.

A. E. Jones, Ltd., had a showcase showing a delightful display of model aeroplanes and accessories.

### T.M.A.C. ANNUAL MEETING

The Second Annual General Meeting was held on September 2. The Secretary, Mr. A. E. Jones, read an interesting reports of the year's progress. The membership a year ago was 40; it was now 370, and included members as far afield as Australia and South Africa. Displays had been held practically every week-end, winter and summer, commencing with that at Epsom last September, when cinematographers and press reporters were present, resulting in valuable publicity throughout the world. The 1930 season opened on March 1, at Wimbledon, when in spite of a very gusty wind, over 50 models were flown. This was the first occasion on which a talking film of model aircraft had been obtained. Competitions or special displays had been held at Wimbledon on the first Saturday in every month, regardless of weather. Visitors could be sure of seeing good flying any Saturday or Sunday, at Wimbledon, and from 11 to 1 on Sunday at Parliament Hill. Mr. Jones concluded by acknowledging the valuable support of the press, particularly *FLIGHT* and the *Model Engineer*.

The Competition Secretary, Mr. T. Newell, reports that great improvements had taken place in the design, construction and handling of machines. Twenty models had been exhibited on the club stand at the "Model Engineer" Exhibition.

Thirty-one prizes had been awarded in club competitions, mostly for duration. Other prizes had been won in open contest, including third place in the Wakefield International Cup Competition, and first and third in *FLIGHT* Cup Contest. Several records had been obtained, including three British records.

The financial statement showed a balance, including prizes still to be competed for, of £41.

It was decided to have a definite subscription rate, as follows:—Entrance fee for all new members, 2s. 6d., in addition to 5s. per annum, Senior active members, 2s. 6d. Junior members, and 2s. 6d. Associate members. These amounts to include cost of badge and card, and the dividing age to be 18.

The club having grown to such large proportions, it was decided to enlarge the General Council to 21 members; further, to relieve the General Secretary of some of his onerous duties by appointing an Organising Secretary, to control sections. Mr. Yeomans, who was unanimously chosen, outlined his proposals for expansion and development, which included instructional facilities.

The Secretary, in conclusion, announced that the club had been offered a petrol engine, also a prize for models approximating to standard light planes, such as the Moth.

M. R. KNIGHT, Asst. Secy.

### IMPORTS AND EXPORTS

AEROPLANES, airships, balloons and parts thereof (not shown separately before 1910).

For 1910 and 1911 figures see *FLIGHT* for January 25, 1912.

For 1912 and 1913, see *FLIGHT* for January 17, 1914.

For 1914, see *FLIGHT* for January 15, 1915, and so on yearly, the figures for 1927 being given in *FLIGHT*, January 17, 1930.

	Imports.		Exports.		Re-exports.	
	1929.	1930.	1929.	1930.	1929.	1930.
	£	£	£	£	£	£
Jan. ..	2,852	2,987	74,307	147,935	100	—
Feb. ..	6,532	2,460	195,369	226,049	2	1,000
Mar. ..	1,210	744	204,664	156,098	90	802
April ..	5,816	2,959	186,477	213,390	115	79
May ..	4,706	11,706	243,549	158,460	1,245	2,550
June ..	9,304	1,029	144,817	252,443	750	1,060
July ..	6,961	14,216	139,695	170,594	—	938
Aug. ..	16,706	5,332	160,625	146,564	4	6,912
	54,037	55,483	1,349,503	1,471,533	2,306	13,341

### PUBLICATIONS RECEIVED

U.S. National Advisory Committee for Aeronautics Reports: No. 318.—Speed and Deceleration Trials of U.S.S. *Los Angeles*. By S. J. De France and C. P. Burgess. Price 10 cents. No. 342.—Effect of Turbulence in Wind-Tunnel Measurements. By H. L. Dryden and A. M. Kuethe. Price 10 cents. No. 343.—Effect of Variation of Chord and Span of Ailerons on Rolling and Yawing Moments at Several Angles of Pitch. By R. H. Heald, D. H. Strother and B. H. Monish. Price 15 cents. No. 344.—The Design of Plywood Webs for Airplane Wing Beams. By G. W. Trayer. Price 10 cents. No. 345.—The Design of Airplane Wing Ribs. By J. A. Newlin and G. W. Trayer. Price 25 cents. U.S. Government Printing Office, Washington, D.C., U.S.A. Department of Overseas Trade: *Economic Conditions in Canada to May, 1930*. Report by F. W. Field. H.M. Stationery Office, London, W.C.2. Price 3s. 6d. net. *With the Italia to the North Pole*. By Umberto Nobile. London: George Allen and Unwin, Ltd. Price 15s. net. *Britain's Place in the Air*. Reprinted from the *Financial News*, July, 1930. The *Financial News*, 20, Bishopsgate, London, E.C.2. Price 6d.

### NEW COMPANIES REGISTERED

G. AND H. AVIATIONS, LTD.—Capital £100, in £1 shares. Objects: to establish, maintain and work lines of aerial conveyances, etc. The subscribers are: F. Greenwood, 119, Mayfield Avenue, North Finchley, N.12, ventilating engineer; J. W. Halliwell, 8, Crescent Road, New Barnet, ventilating engineer; H. Whitehead, 80, Huntingdon Road, East Finchley, N.2, engineer's clerk. Solicitors: Milnes and Milnes, 7, New Square, W.C.2.

### AERONAUTICAL PATENT SPECIFICATIONS

(Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specification will be printed and abridged, etc.)

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